Investigating a Systematic Process to Develop Teacher Expertise: A Comparative Case Study

by

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Dissertation Approval

As members of the dissertation committee for Paul George Mielke and on behalf of the Doctoral Program at Cardinal Stritch University, we affirm that this report meets the expectations and academic requirements for the Ph.D. degree in Leadership for the Advancement of Learning and Service.

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Dedication

The greatest lessons in life are often those that we stumble upon on our way to “something more important.” My greatest realization through this long journey has been finally understanding the importance of family and the value of time. My appreciation of how fortunate I am to be surrounded by such a loving and supportive group cannot be overstated. I thank God every day for blessing me with such a wonderful family. Words like ‘patience’ and ‘understanding’ pale when I consider the support of my wife, Jena. She is the greatest story to ever enter my life. I love you.

Thanks for the gracious understanding of my sons LaDainian Jack and Xzavier Ray, “Daddy no work. Stay home,” is finally a reality.

Thanks to my parents for instilling in me the values and work ethic that made this possible. Dad, I think of you every day. Mom, thanks for teaching me to always seek out answers to the questions that lie within.

Thanks to the support of the West-Allis West Milwaukee School District. Thanks to Laura Westcott for your insight. Thank you to members from Cohort XV for your help as well. Thanks to my mentor Mark Hansen for your insight, encouragement and friendship. You have impacted more than you will ever know.

Thanks to my committee members Peter Jonas and Jim Rickabaugh for your insight and support. Special thanks to my advisor, Tony Frontier, for his wisdom and guidance. He told me at the beginning that “This is your ship. You’re the Captain, I am just sitting up front to make sure you don’t hit any icebergs.” Thanks for navigating me through the rough waters. We made it to port!!
Abstract

There is little evidence that traditional clinical supervision models improve teaching practice (Donaldson, 2009; Schmoker, 1992). However, the use of video (Brophy, 2004; King, 2011; Marshall, 2002; Sherin and Van Es 2009) and reflective peer observation (Cosh, 1999) coupled with a research based teaching framework (Danielson, 1996; Marzano, 2007, 2010) in conjunction with structured reflection, may be used to generate specific, timely feedback. This feedback informs and improves teaching by helping teachers become self-directed through improved metacognition. Defining a process that maximizes these methods may improve teaching practices.

The purpose of this qualitative research study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing self-directed teachers. The research question guiding this study was: How does a comprehensive teaching framework, combined with self-video analysis and reflective peer observations, impact metacognition and the development of teacher expertise?

Methods used to gather data were interviews, document analysis and focus groups. This study used a comparative case study with a qualitative approach. Fifteen teachers were divided into two separate cohorts. The cohorts utilized a comprehensive teaching framework, video analysis, reflective peer observations and written reflections with the goal of improving teacher expertise. One cohort utilized the Danielson Framework for Teaching while the second cohort utilized The Marzano Observation Protocol.
The constant-comparison method of data analysis suggest: 1) using a comprehensive framework had multiple benefits for teachers 2) teachers improved their ability to become self-directed, 3) greater specificity of the Marzano comprehensive teaching framework more positively impacted the ability of teachers to monitor and modify their teaching, 4) a limited focus on improving specific behaviors positively impacted teachers, 5) a structured process for obtaining feedback, reflecting, and peer sharing positively impacted teacher growth.

Implications of the research maintain that: 1) schools should utilize comprehensive teaching frameworks, 2) a supervision process that empowers teachers to develop expertise through self-video analysis, peer observation and structured self-reflection should be considered, 3) schools should provide teachers with the structure, framework, and tools to become self-directed, 4) the concept of deliberate practice should be a central component to improve teaching.
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CHAPTER ONE: INTRODUCTION

Statement of the Problem

Current research has emphasized the importance of effective teachers as the most critical factor in determining school and student success (Goldhaber, Anthony, & Urban Inst, 2005; Marzano, 2000, 2003; Mathers & Olivia, 2008; Wright, 1997). Thus, it would logically follow, that schools should focus on developing teachers to enhance their effectiveness in order to increase student achievement. According to Donaldson (2009), a potential exists to develop teachers through an effective supervision and evaluation process. The importance of effective supervision and evaluation is well summarized in this statement by Scriven (1995);

Collectively, in one high school, during the career of one principal, the effect of incorrect advice and counseling, incorrect selection, incorrect promotion and retention, will add up to very large adverse effects on the education of 20,000 students. These are avoidable effects. (p. 118)

While there seems to be consensus in the literature that teacher effectiveness is the most important factor in the classroom that impacts student achievement, there is little consensus on how to effectively impact teacher effectiveness through teacher evaluation. Marzano (2010) believes that schools need to maximize the effects teachers have on student learning by focusing teacher efforts on not only learning high probability strategies but how and when to deliver them as well. In a sense, everything that teachers “do” in their classrooms works to some degree (Hattie, 2009) but a key to improving student achievement is implementing practices that have the best chance for success.
Donaldson (2009) states that, “Historically, teacher evaluation has not substantially improved instruction or expanded student learning” (p. 1), however, Mathers and Olivia (2008) believe that "the role of teacher evaluation has surfaced only recently as an underutilized resource that might hold promise as a tool to promote teacher professional growth and measure teacher effectiveness in the classroom" (p. 1). As supervision and evaluation models have evolved, researchers have struggled to create a systematic process that generates usable feedback that addressed the nuances and complexities of teaching. Schmoker (1992) states that, “Research has finally told us what many of us suspected all along: that conventional evaluation, the kind of overwhelming majority of American teachers undergo, does not have any measurable impact on the quality of student learning. In most cases, it is a waste of time” (p. 24). Few models if any have been identified that have proved to be manageable for supervisors and that lead to teacher growth.

Marshall (2005) believes that current supervision and evaluation processes do not “prod teacher's to emerge from their isolation and reflect with their colleagues on what they need to change in order for more students to succeed” (p. 730). According to Marzano, Frontier, and Livingston (2011), there is a need to implement a teacher supervision and evaluation process that;

1. includes a well-articulated knowledge base for teaching,
2. has focused feedback and practice,
3. offers opportunities to observe and discuss expertise,
4. provides clear criteria and a plan for success,
5. provides recognition of expertise.
Defining a process and tools that meet these criteria may be the key to developing effective teachers. Marzano and associates (2011) believe that now is the time to identify a process that can create self-monitoring and reflective teachers that focuses on teacher development of specific skills that enhance teacher effectiveness. They also believe that if schools equip teachers with a common language and framework on best practices, made up of very specific skill sets, it has the potential to accelerate the development of teacher expertise that leads to student achievement.

Therefore, the problem is that school districts struggle to implement a systematic, effective, and sustainable teacher supervision and evaluation process that focuses on developing teachers. By further exploring and evaluating a comprehensive teaching framework (such as the Marzano Observational Protocol or the Danielson Framework for Teaching) in combination with video analysis of teachers own teaching, reflective peer observations, and written reflections, educators may finally realize an effective means of improving teacher effectiveness via a systematic process that promotes teacher growth.

**History of the Problem**

Since the passing of the No Child Left Behind (NCLB) Act of 2001 there has been an increase in accountability for improved student learning. NCLB mandated that teachers be highly qualified (with a minimum of a bachelor’s degree, full state licensure and certification); however, highly qualified teachers do not necessarily correlate with highly effective teaching (Goldhaber, et al., 2005). Furthermore, teacher certification is not predictive of teacher effectiveness (Gordon, Kane, Staiger, & Brookings Institution Washington DC, 2006.). If educational leaders place an onus on the development of teachers
through supervision and evaluation that provides timely feedback that shapes and forms teacher instruction it may be possible to improve teacher effectiveness.

The literature showed that formal teacher evaluation and supervision has changed dramatically since its inception in colonial times. According to Sullivan and Glanz (2009) early on supervisors were often ministers or other distinguished citizens who stressed strict control of schools and the facilities. Spears (1953) adds that through at least the first half of the nineteenth century supervision was based on maintaining the existing standards of instruction, rather than on the ideas of improving them. This philosophy, and the use of lay supervision, was prevalent through the middle of the nineteenth century. However, supervision changed dramatically in the late nineteenth century with the creation of district and then state-controlled supervision (Sullivan & Glanz, 2009).

According to Scriven (1995), in the early 1900’s the responsibilities of the evaluators were to monitor and control the behaviors of teachers. Evaluators continued into the 1960's with this approach as they monitored the teacher's implementation of the most recent educational practices and methodologies. The 1970s and 80's brought a new approach as supervision and evaluation transitioned into the professional movement. This began when Robert Goldhammer introduced a model that he developed with Spencer Cogan focusing on data collection, instructional activities, and frequent feedback through multiple evaluations to create the clinical supervision model. Also during the 1980s, Schön (1983) promoted reflective practice as a way to address concerns and improve instruction. Glickman (2002) expanded on this work by differentiating evaluation based on the teacher's developmental level and stage of development. Danielson (1996) states that recently standards based teacher evaluation practices have emerged to be a primary source of teacher evaluation and feedback.
This brief review on the history of supervision and evaluation revealed that teaching is a complex profession and thus demands a feedback tool that can handle the complexities and nuances of teaching and learning (Marzano, 2007; Marzano et al., 2011). According to Marzano (2010), without a specific, research based, systematic framework providing feedback to teachers, supervision and evaluation will fail to reach its potential in impacting teacher effectiveness and student achievement. Marzano et al., (2011) believe to have a true evaluation process impact teacher performance, it is necessary to systematically implement a robust and complex model which allows for timely and specific feedback. Danielson (2007) underscores the need for a standards based framework, “Without a framework, the structure is reduced to whatever the mentor, coach or supervisor has in her head, and it thus reflects the personal beliefs that individual holds about teaching, regardless of whether these have ever been made explicit” (p. 12). Therefore, it is important that teacher supervision and evaluation models incorporate a standards based framework that delivers actionable feedback to teachers with the goal of teacher growth.

**Current Status of the Problem**

Recently, teacher supervision and evaluation has become a topic of debate in mainstream media on how to improve the American education system. The cover of the March 15th, 2010 *Newsweek* depicted a blackboard with the words “We must fire bad teachers,” scrolled across it repeatedly with the disclaimer, “The Key to Saving American Education.” See Figure 1.
The American education system is at a crossroads as it struggles to deal with the accountability of educating all children. The supervision and evaluation of teachers is becoming an increasingly popular topic because of its lack of impact on either improving teachers or eliminating poor teachers from the system. A recent report entitled “The Widget Effect” (Weisberg, Sexton, Mulhern, and Keeling, 2009) described the results of an analysis comparing evaluation practices of 12 districts across four states that included approximately 15,000 teachers, 1,300 administrators, and more than 80 local and state education officials. The researchers concluded that current policies and systems overlook differences between teachers. The authors’ state there is little differentiation between excellent and good teaching, good and average teaching or average and unsatisfactory teaching. The authors term this the “Widget Effect” which is a tendency to treat teachers interchangeable even though they may differ greatly. This leads to non-differentiated professional development and allows poor performance to continue unchecked. This highlights the current issues of
supervision and evaluation that lack focus on differentiated and focused professional development. In “The Widget Effect”, the authors also argue that:

We know that improving teacher quality is one of the most powerful ways--if not the most powerful way--to create better schools. In fact, a student assigned to a very good teacher may gain up to a full year's worth of additional academic growth compared to a student assigned to a very poor teacher. (Weisberg, et al., 2009, p. 9)

A current challenge in education is to develop an effective supervision and evaluation process that can directly impact the quality of teaching.

**Need for Further Study of Problem**

One of the primary issues facing teacher supervision and evaluation has been the absence of a feedback tool and process that is flexible enough to be used in various ways (teacher self-ratings, teacher observations, walkthroughs, and complete observations) yet still specific enough to deliver meaningful and actionable feedback. Odden (2004) argues that the most successful frameworks have been standards-based evaluation systems that provide clear indicators of what is expected of teachers and outlines how teachers will be assessed while providing a guide for future professional development. However, according to Marzano (2010), there has been a void in terms of creating a research-based feedback protocol that is robust enough to handle the nuances and complexities of teaching yet specific enough to be practical and useful for teachers to utilize.

There are gaps in the literature in regards to a sustainable, efficient, and effective method of creating feedback that develops teacher expertise. However, there are current methods being used that hold the potential to generate actionable feedback for teachers to develop teacher expertise. The use of video (Brophy, 2004; King, 2011; Marshall, 2002;
Sherin and Van Es (2009) and reflective peer observation (Cosh, 1999) coupled with a research and standards based teaching framework (Danielson, 1996; Marzano, 2007, 2010) may hold the key to generating specific, timely feedback that can inform and impact teaching. According to Garmston (2000), the use of self-generated feedback has the potential to raise awareness and create a self-monitoring professional educator who is more aware of the nuances that have the potential to impact teaching.

**Purpose of the Study**

One of the initial driving forces behind this project was to find a process that aided teacher evaluation. As detailed in the literature review, many of the current practices of teacher evaluation are ineffective and inefficient. Thus, this project attempted to implement a process that would not replace formal teacher evaluations but would help teachers and administrators incorporate a sustainable program that could improve current teaching and aid in the evaluation process by creating awareness of expectations and by offering tools to improve teachers’ current practices. The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. The research question guiding this study was: How does a comprehensive teaching framework, combined with self-video analysis and reflective peer observations, impact metacognition and the development of teacher expertise? Related questions that guided this study were:

1. To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring, and self-modification of one’s own teaching?
2. To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring, and self-modification of one’s own teaching?

3. To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring, and self-modification of one’s own teaching?

4. Were the perceptions of teacher’s performance impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?

5. Did using a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observation, facilitate deliberate practice? In what ways?

**Approach of the Study**

Given the purpose of this study, the researcher chose to conduct a qualitative case study. The research sought to better understand the impact of a potential teacher supervision and evaluation process that focused on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. Specifically, the comparative case study approach was chosen due to its ability to compare similar situations that were significantly different in a particular area. This study used a comparative case study with a qualitative approach and an embedded single-case design. Yin (2006) detailed this approach in *Case Study Research and Design Methods*. Furthermore, the comparative case study was selected because Kaarbo and Beasley (1999) state that it is especially useful when investigating novel hypotheses or theories.
The case study approach allowed the researcher to study the teachers who participated in a voluntary workshop that provided training in the following areas:

1. Using a comprehensive teaching framework (the Marzano Observational Protocol or the Danielson’s Framework for Teaching).
2. Discussing expertise development and growth mindset
3. Discussing self-reflection and metacognition
4. Implementing processes to record and analyze video of one’s own teaching
5. Implementing processes to analyze reflective peer observations
6. Utilizing a structured reflection process.

The workshop participants participated in interviews and submitted documents for analysis that were based on structured reflections of their video analysis and their reflective peer observation experiences.

The study implemented two comprehensive teaching frameworks and the participants were split into two separate cohorts. The Danielson Cohort utilized the Danielson Framework for Teaching while the Marzano Cohort utilized the Marzano Observational Protocol. Due to the uniqueness of the project and because the Marzano Observational Protocol was less than two years old at the time of the data collection, the project called for the creation of a very specific study design. Because the Marzano Observational Protocol was new, it offered the challenge of having very few current practitioners who are familiar with or currently implement it. This necessitated the need to build a research design allowing for the actual teaching and implementation of the protocol. The researcher created a workshop for teacher volunteers that focused on professional development utilizing a comprehensive teaching framework, video analysis of participants own teaching and
reflective peer observation with the goal of improving teacher expertise. The assignments from the workshop were the source of the document analysis for the study.

When assessing the impact of the proposed model, it would become difficult to determine if the impact on deliberate practice and expertise came from the comprehensive framework or one of the other variables. Thus, the researcher determined that if an identical workshop was offered except for the substitution of Danielson’s Framework for Teaching for the Marzano Observational Protocol, it would provide the researcher an opportunity to isolate the impact of the Danielson Framework for Teaching and the Marzano Observational Protocol on deliberate practice and the development of teacher expertise.

The Charlotte Danielson Framework for Teaching model was selected because it is researched based and also is commonly found in school districts. The model was also selected because while it is researched based, it is more general in its approach than the Marzano Observational Protocol. It is hypothesized, that a more specific framework such as the Marzano Observational Protocol, is more aligned with the theories of deliberate practice and development of expertise (Ericsson & et al., 1993; Ericsson, 2006) and thus would be more likely to create the dispositions that lead to the development of expert teachers.

**Significance of the Study**

This study is important because it attempts to discover a systematic and sustainable process that fosters teacher growth by honoring adult learning needs and creating teachers who can become self-monitoring. The development of a system that develops teacher expertise through self-monitoring reflection could greatly impact the effectiveness of teacher supervision and evaluation because it has the potential to be more effective and sustainable than typical supervision and evaluation processes. This is because the process is
differentiated for each teacher and does not rely on the expertise of a few observers giving actionable and high quality feedback.

This study explored the impact of using video recordings of teachers in their own classroom environment and reflective peer observations along with utilization of a comprehensive teaching framework to guide reflection, deliberate practice and development of teacher expertise. The use of video recordings and reflective peer observation combined with a research based comprehensive teaching framework could be the impetus for feedback that develops expert teachers. Few, if any, current teacher evaluation systems have created a model that incorporates an effective means to deliver actionable feedback based on a research based framework that is very specific in its identification of practices and strategies that help develop teacher expertise. If a model can be implemented that helps to improve teacher performance it could improve student achievement.

**Uniqueness and Compatibility of the Research**

This study offered a unique contribution to current research on supervision and evaluation by examining the potential of using video analysis and reflective peer observations combined with a comprehensive teaching framework to improve teacher expertise. This study also focused on the use of internal generated feedback versus the typical external feedback delivered by observers.

**Contribution to Knowledge, Theory, and Practice**

This study was an attempt to provide both administrators and teachers a format for teacher supervision and evaluation that was centered on the idea of teacher growth and improvement. The implementation of a model that puts an emphasis on internalization that could lead to deliberate practice and the development of expertise through structured self-
reflection via internal generated feedback, could greatly impact the daily teaching and learning in K-12 schools.

**Delimitations and Limitations of the Study**

**Assumptions**

This study was conducted with the following assumptions:

1. It is possible to become a better teacher through focused effort and improved awareness on specific skills.
2. Participants in the study wanted to improve their teaching.
3. Participants were able to critically exam their own practice with the tools and resources provided.

**Limitations**

This study was limited in the following areas:

1. The study involved only one school district that was limited to a total of 15 teachers.
2. The Marzano Observational Protocol is so new that there are limited studies on the effectiveness of this model.
3. There may be several other factors that have an effect on professional growth, other than the method of evaluation being used.
4. The Art and Science of Teaching framework that the Marzano Observational Protocol (2008) is based on is very new and has limited exposure which could limit the results from the study. The other model that was used in the study was Daniel’s Professional Framework for Teaching is the current evaluation model used in the school district where the study took place.
5. The timing of the study and interviews took place during the months of April, May, and June which caused time and resource constraints on the participants.

**Parameters**

The parameters of this research project were:

1. The research site was a public school in the Midwest.
2. The participants were teachers from the elementary, middle, and secondary levels.
3. The research was solely qualitative.

**Timeframe**

There were two informal pilot studies conducted using the Marzano Observational Protocol from September to December in 2010 and also from February 2011 to May 2011. The informal studies provided feedback allowing the researcher to improve the data collection process for both the video analysis of the participants’ teaching and reflective peer observation guidelines. The pilot study allowed the researcher to develop a succinct format for both video analysis and reflective peer observation. The pilot study also allowed the researcher to improve questions for the document analysis as well as to forecast and eliminate potential problems with the study group. The pilot study was conducted as a part of a three credit graduate class for interested teachers that focused on the use of the Marzano Observational Protocol combined with analysis of video recordings of one’s own teaching and reflective peer observations.

The actual dissertation research took place from April, 2011 to January, 2012. Participants were placed into either the Danielson Cohort or the Marzano Cohort and met for three hours on three separate occasions in a workshop format. Teachers were given release time from the district to participate in the workshop. Data collection consisted of interviews,
document analysis of reflection questions based on self-video analysis and reflective peer observations as well as a final reflection and a confirming focus group. The workshop meetings took place in April and May of 2011. Interviews were conducted in June of 2011 and the confirming focus group met in January, 2012.

**Vocabulary of the Study**

For consistency of interpretation, the following terms are defined:

*Comprehensive Teaching Framework:* a teaching rubric that creates common language, identifies specific strategies and behaviors, and defines expectations for effective teaching.

*Deliberate Practice:* “activities that have been specially designed to improve the current level of performance” (Ericsson & et al., 1993, p. 368).

*Expertise:* “refers to the characteristics, skills, and knowledge that distinguish experts, who are consistently able to exhibit superior performance for representative tasks in a domain” (Ericsson, 2006, p. 3).

*Growth mindset:* the foundation for individual improvement by emphasizing internal locus of control over external locus of control and that people can achieve higher levels of performance if they believe that they can through persistence, perseverance, and dedication (Dweck, 2008).

*Metacognition:* awareness individuals have of their own thinking; their evaluation of that thinking; and their regulation of that thinking (Wilson and Clarke, 2004).

*Praxis:* the act of applying new ideas to our own lives (Knight, 2011, p. 43).

*Reflective Peer Observation:* the focus is on the teacher’s own development, rather than the presumed ability to develop the teaching of one’s peers or colleagues” (Cosh, 1999,
According to Cosh (1998) reflective peer observation “is active self-development: an intrapersonal process, which encourages awareness, experiment, and the sharing and dissemination of good practice” (p. 173).

**Self-managing:** the ability to articulate goals and intentions with a clear vision while including specificity for indicators of success (Ellison & Hayes, 2009).

**Self-modifying:** the ability to construct meaning by evaluating actions and decisions against goals and commit to make changes based on new learning (Ellison & Hayes, 2009).

**Self-monitoring:** the ability to gather data on an ongoing process comparing the current conditions to the intended plan through observing and attentive listening (Ellison & Hayes, 2009).

**Summary and Forecast**

This introductory chapter presented an overview of the study through description of the background, purpose, approach, significance, delimitations and limitations, and vocabulary of the research. Chapter Two constructs the theoretical framework of the study through a review of literature related to the research questions. Chapter Three describes the research design employed to conduct the study, with particular attention to methodology and technique applied to data collection and analysis. Chapter Four presents the study results in the form of data generated and analyzed through application of the research design. Chapter Five presents a discussion of study findings and conclusions related to the research questions and reviewed literature. This concluding chapter also addresses the implications of the findings for practice and research, as well as leadership, learning, and service.
CHAPTER TWO: LITERATURE REVIEW

Organization of Review

The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. The research question guiding this study was: How does comprehensive teaching framework, combined with self-video analysis and reflective peer observations impact metacognition and the development of teacher expertise? Related questions that guided this study were:

1. To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring, and self-modification of one’s own teaching?
2. To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring, and self-modification of one’s own teaching?
3. To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring, and self-modification of one’s own teaching?
4. Were the perceptions of teacher’s performance impacted by using a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?
5. Did using a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways?
This chapter provides an overview of the literature addressing research and theory related to the study in the areas of expertise, supervision and evaluation, comprehensive teaching frameworks, namely the Danielson Framework for Teaching and the Marzano Observational Protocol, video analysis of teaching, reflective peer observations and metacognition and reflection. A summary analysis of prominent themes and findings within the reviewed literature as well as a proposed model for teacher growth is presented at the end of the chapter.

**Theoretical Framework**

The literature review will begin with a review of the research on developing expertise and deliberate practice (Berliner, 1988; Ericsson, 1996, 2006; Ericsson et al., 1993) as well as a review of Dweck’s (2008) growth mindset concept. The theory on expertise development will create the foundation on which this study is built. The following sections of the literature review will outline both the need and components necessary to promote deliberate practice in teaching which could lead to the development of expertise (Ericsson, 2006; Ericsson et al., 1993).

The second section will be devoted to reviewing the literature on the effectiveness of current supervision and evaluation practices in schools (Danielson, 2007; Donaldson, 2009; Marzano, 2007; Mathers & Olivia, 2008; Weisberg et al, 2009). This section also explores the literature on the current issues with feedback in supervision and evaluation systems (Marshall, 2009; Weisberg, et. al., 2009). There is also a brief discussion of making teacher growth the goal of supervision and evaluation systems (Marzano, et. al., 2011).

The third section starts with a literature review on rationale for using a comprehensive teaching framework (Danielson, 1996; 2007; Marzano, 2010; Marzano et. al
The focus then moves to the two comprehensive teaching frameworks that were included in the study. The first framework reviewed was Danielson’s (1996, 2007) Professional Framework for Teaching. This was followed by a review of The Marzano Observational Protocol (Marzano, 2007, 2010; Marzano et. al., 2011).

The fourth and fifth sections reviews the literature on video analysis of teacher’s own teaching (Brophy, 2004; Sherin, 2000; Sherin & Van Es, 2005, 2009) and reflective peer observations respectively (Cosh, 1998, 1999). These two components are the tools used in conjunction with a comprehensive teaching framework to create self-generated feedback for teachers that could potentially be used to help promote teacher growth.

The final section reviews the research on metacognition and reflection (Costa and Garmston, 2002; Garmston, 2000; Loughran, 2002; Mezirow, 1990; Wilson & Clarke, 2004). This section directly links the self-generated feedback, created from the video analysis and reflective peer observations, and its application in terms of deliberate practice and praxis. This section reviews the components that create a process for linking a comprehensive teaching framework, video analysis of one’s own teaching, reflective peer observations, praxis and deliberate practice to teacher expertise for this study.

Figure 2 represents a conceptual map of the connections among main works used in this study.
Figure 2: Conceptual Map of Literature Review


**Video Analysis of Own Teaching:** Brophy, (2004); Sherin, (2000); Sherin & van Es (2005; 2009);

**Peer Observation:** Cosh (1998, 1999)

**Metacognition and Reflection:** Costa & Garmston, (2002); Garmston, (2000); Loughran, (2002); Mezirow (1990); Wilson & Clarke, (2004)

This figure represents the literature review. Each section of the literature review is represented by a box which contains the title of each section along with the main authors referenced within the section.
Review of Research and Theory about Development of Expertise

Section Introduction

The following section on the development of expertise summarizes the literature that was reviewed with particular emphasis given to Ericsson (1993, 1996, 2006), Berliner (1988) and Dweck (2008). The key concepts that are highlighted in this section will be:

1. The definition and importance of studying expertise.

2. The concept of deliberate practice which is intense purposeful practice over an extended period of time with focus on specific skills (Ericsson, Krampe, & Tesch-Römer, 1993).

3. The importance of being able to self-monitor and self-adjust in order to acquire expertise (Ericsson, 2006).

4. The importance of intentionally engaging in specific, designed activities that is outside of the participants comfort zone in order to improve performance (Ericsson, 2006).

5. The definition and importance of the growth mindset (Dweck, 2008).

This section also contains literature from other researchers and authors that are summarized to help support these main ideas along with other related concepts and theories. The literature on expertise development was reviewed in order to build a basis for pursuing a teacher supervision and evaluation model that fosters teacher growth and improvement with the ultimate goal being to create expert teachers.
Defining Expertise

In their recent book entitled *Effective Supervision: Supporting the Art and Science of Teaching*, Marzano, Frontier, and Livingston (2011) make the argument that if the supervision and evaluation process is to have an impact on teacher effectiveness, supervisors and teachers must find a way to improve specific teaching skills. Improved supervision and evaluation models should incorporate the latest research on expertise development and deliberate practice in order to help promote teacher growth. If the goal of supervision and evaluation is to promote teacher development and growth, using the latest research on expertise and deliberate practice may provide the road map necessary to navigate this journey.

Applying the concept of expertise to teaching is not new in education. Berliner (Berliner & American Association of Colleges for Teacher Education, 1988) who is an educational psychologist that has authored more than 200 articles, books, and chapters in the fields of educational psychology, teacher education, and educational policy believed that creating expertise begins with increasing awareness of the developmental stages of pedagogical expertise. Berliner described the stages of expertise development as follows:

- Novice: General rules are followed that are context free.
- Advanced beginner: Experience is impacting behavior but there is no sense of what is important.
- Competent: Conscious choice about what to do, priorities are set and plans are followed. They feel responsible for what is happening and there is an emotional attachment to success and failure.
• Proficient: Intuition or know-how becomes important. Have the ability to predict events more precisely and are analytical and deliberative in how to respond.

• Expert: What to do or where to be at the right time. Automaticity in accomplishing goals; recognizes meaningful patterns quickly, is flexible and opportunistic.

Berliner believed that defining the levels of expertise would help to increase teachers’ ability to reflect due to awareness of the stages (this idea will be developed further in a following section on metacognition).

The work on expertise of the 1970s and 1980s was summarized by Glaser, Chi and Farr (1988) in the following manner. Experts (1) excel within their own domains, (2) perceive meaningful, interconnected patterns in their domain, (3) are faster and more accurate than novices performing skills in their domains, (4) have better short and long term memory than novices, (5) recognize problems in their domain at a deeper level than novices, (6) spend a larger portion of time qualitatively analyzing problems, and (7) self-monitor effectively during problem solving. Notice that the Glaser, Chi and Farr definition of expertise aligns with the Berliner definition of an expert teacher.

In studying expertise there are two basic approaches. One approach is to study exceptional people with the goal of trying to understand how they perform in their area of expertise. This approach makes an assumption that greatness arises from chance or a unique innate talent. A second method to study expertise is through a relative approach. This approach assumes that expertise is a level of proficiency that individuals can achieve. In this approach Chi (2006) states, “a goal is to understand how we can enable a less skilled or experienced person to become more skilled, with the ultimate goal being to understand how
experts became that way so that others can become more skilled and knowledgeable” (p. 23). This concept is important because if the goal of teacher supervision and evaluation is to improve current teachers then it is necessary to identify an approach that adopts the belief that novices can become experts if they are willing to put in the effort to develop expertise. The discussion that follows will delve into the concepts that support the relative approach.

Studying experts is important because of the potential impact that this information can have on improving the performance of teachers. K. Anders Ericsson (2006), is a Professor of Psychology at Florida State University whose current research concerns the structure and acquisition of expert performance and in particular how expert performers acquire and maintain their superior performance by extended deliberate practice, states that, "Once we know how experts organize their knowledge and their performance, it is possible to improve the efficiency of learning to reach higher levels of expert performance in these domains" (p. 9). In other words, if individuals have a process and system that accurately reflect the complexities and nuances of a skill; they can improve in very specific areas which can allow them to reach expert levels of performance.

Some of the key aspects of expertise development lie in the ability of individuals to apply knowledge quickly, consistently and their ability to adapt. Feldon (2006) defines expert performance in the following manner, “Expert performance is a product of experience-based knowledge that can be recalled quickly and consistently and then deployed. Experts solve problems deductively by manipulating their mental models to identify optimal solutions based on context of the situation” (p. 3). Ericsson (2006) defines expertise in a similar manner: "Expertise then refers to the characteristics, skills, and knowledge that distinguish experts, who are consistently able to exhibit superior performance for
representative tasks in a domain" (p. 3). For this research project, Ericsson’s definition will be used to define expertise. This definition was chosen because its structure of incorporating characteristics, skills, and knowledge along with its focus on specific tasks complements the concepts of implementing a comprehensive teaching framework. In terms of teaching for example, Marzano has created a comprehensive teaching framework entitled The Marzano Observational Protocol that is based on his previous work, The Art and Science of Teaching (2007) that consists of 60 specific skills. Experts then are teachers who consistently display superior performance in these specific skills. It should be noted that because of the comprehensive nature of teaching frameworks, it is quite possible that teachers could be considered experts in certain areas but not in others. This is important because if the goal of supervision and evaluation is growth, then individuals should be vested in continuous improvement. However, continuous improvement can be elusive because it is not an automatic process. Both the concepts of continuous improvement and comprehensive teaching frameworks will be discussed in detail in an upcoming section.

**Aspects of Expertise**

In order to better understand Ericsson’s (2006) model of expertise, it is necessary to be familiar with the core components that help to define his model. According to Ericsson, et al., (1993) a key component to the model is that the development of expertise does not happen quickly. Ericsson believes that the highest levels of performance and achievement require approximately ten years of intense prior preparation. This supports the idea that expertise does not simply come with experience or easily but instead is the result of intense, purposeful practice on very specific skills. Research in terms of teacher effectiveness has shown that experience or levels of education have little correlation with student achievement
This underscores the importance of Ericsson’s concept of deliberate practice. Ericsson et al., (1993) revealed that continued improvements (changes) in achievement are not automatic consequences of more experience, and in those instances where performance consistently increases, it is because aspiring experts attempt to improve through deliberate practice. The key to improvement is not simply experience, but instead improvement is the result of individuals seeking to improve in very specific skills.

According to Dunn and Shriner (1999), another distinguishing aspect of an expert is their persistence in completely understanding their context. “Experts continue to look for and tackle the complexities of a domain, rather than reduce problems to situations that can be handled with routine procedures” (p. 632). Here is another reason why a robust framework for teaching is necessary. A comprehensive framework that identifies (but does not minimize) the nuances that are necessary for expert performance helps practitioners to more easily identify specific skills to develop. Expert levels of performance may be attainable if teachers identify and improve their skills through specific, intense, and purposeful practice.

**Deliberate Practice**

Ericsson (1996) uses the term deliberate practice to define the process by which expertise is reached. Specifically deliberate practice is defined “as activities that have been specially designed to improve the current level of performance” (Ericsson & et al., 1993, p. 368). Ericsson’s term of deliberate practice is a multi-faceted concept that entails several components. The following table highlights the key components of deliberate practice as delineated by Ericsson (1996) and Ericsson et al., (1993).
### Table 1

**Key Components of Deliberate Practice**

<table>
<thead>
<tr>
<th>Key Components of Deliberate Practice</th>
<th>Description</th>
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<tbody>
<tr>
<td>Goal is improved performance</td>
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<tr>
<td>Skills to be developed should be based on specific needs</td>
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<tr>
<td>Sustained effort of repetitive of specific tasks are designed to improve weakness</td>
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</tr>
<tr>
<td>Activities provide opportunity for learning and skill acquisition</td>
<td></td>
</tr>
<tr>
<td>Practice should be outside of comfort zone</td>
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</tr>
<tr>
<td>Performance is carefully monitored</td>
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<tr>
<td>Feedback is necessary</td>
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<tr>
<td>The ability to self-monitor is a necessity</td>
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<tr>
<td>The process may not be enjoyable but the pleasure comes from the development and enhanced performance</td>
<td></td>
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<tr>
<td>Expert performance is acquired gradually and incrementally</td>
<td></td>
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</table>

(Source Ericsson (1996) and Ericsson et al, (1993))

According to Ericsson, et al., (1993) deliberate practice refers to activities that provide optimal opportunity for learning and skill acquisition while participating in a structured activity with the explicit goal of improving performance. Ideally, participants should be practicing outside of their normal comfort zone. Another key aspect of deliberate practice is that specific tasks are designed to help participants improve weaknesses with performance being carefully monitored. Furthermore, Ericsson (1996) states that deliberate practice is not inherently enjoyable because people are attempting to work outside of their comfort zone but individuals are motivated to participate in deliberate practice because the enjoyment comes in the development and enhancement of the overall performance. Finally, the selection of what skills to develop and practice cannot be randomly selected. Skills to be developed should be selected based on specific needs and monitored accordingly.

What should be noted is that development of expertise is about the journey of continuous improvement. “Expertise is not an endpoint, it is a continuum” (Ericsson, 2006, p. 300). Expertise isn’t something you are, it’s something you aspire to be. The core
assumption of deliberate practice (Ericsson & et al., 1993; Ericsson, 1996, 2002, 2004) is that expert performance is acquired gradually and that the learner engages in practices that are outside of their current level of attainment in tasks that are designed by a teacher or coach. Ericsson (2006) believes that expertise can be developed by concentrating on carefully selected aspects that are in need of improvement and refinement through repetition and feedback. Another area that is currently lacking in teacher supervision and evaluation is the actual practicing of critical aspects and the use of feedback to develop these identified areas of need. Ericsson has shown that repetition of specific skills and feedback is critical to reach expertise levels.

When deliberate practice is considered, it should be noted how important the role of feedback is. Ericsson (2006) states that “To assure effective learning, subjects ideally should be given explicit instructions about the best method and be supervised by a teacher to allow individualized diagnosis of errors, informative feedback, and remedial part training” (p. 367). Individuals are needed to provide feedback and resources that help support the individuals in attainment of their goal. According to Ericsson (2006) "Research on what enabled some individuals to reach expert rather than mediocre achievement, revealed that expert and elite performers seek out teachers and engage in specially designed training activities (deliberate practice) (p. 61). Again, it should be noted that expertise is developed through intentionally focusing on improving very specific skills. These skills are improved by engaging in deliberate practice which should be outside of the participants comfort zone. Furthermore, the ability to self-monitor one’s own performance is a key aspect that helps to facilitate the development of expertise.
The Process of Gaining Expertise

Educators currently live in an ever-changing world that is being created and recreated before our very eyes on a continual basis. The rapidly changing world will put an emphasis on people’s ability to improve just to maintain their level of performance. These rapid changes will have an impact on everyone, not just those who seek to become experts. According to Ericsson (2006), individuals must participate in deliberate practice just to maintain their current skill level.

With the rapid changes in the relevant knowledge and techniques required for most jobs, nearly everyone will have to continue their learning and even intermittently relearn aspects of their professional skills. The life-long quest for improved adaptation to task demands will not be limited to experts anymore. We will all need to adopt the characteristics and the methods of the expert performers who continuously strive to attain and maintain their best level of achievement. (p. 17)

Ericsson and Lehmann (1996) found that most individuals who start as active professionals, or as beginners in a domain, change their behavior and increase their performance for a limited time until they reach an acceptable level. Beyond this point, however, further improvements appear to be unpredictable and the number of years of work and leisure experience in a domain is a poor predictor of attained performance. As previously stated, individuals will not simply improve because they have more experience. According to Ericsson (2006) and Marzano, et al., (2011), deliberate practice, or intense focus on the improvement of very specific skills, is what leads to expertise development. Ericsson (2006) reveals that if an individual practices random skills instead of focusing on improving specific qualities that have shown to impact effectiveness, the practicing of such
skills is rendered meaningless. The following graphic aids in understanding the difference between everyday skills, arrested development and expert performance.

**Figure 3: Process of Expert Performance and Everyday Skills**

![Figure 3](image)

According to Ericsson (2008), figure 3 depicts qualitative difference between the course of improvement of expert activities and everyday activities. After individuals pass through learning phases they can generate performance with minimal effort. For example, after the skill of tying one’s shoe has become automated and execution is effortless, additional experience will not lead to higher levels of performance. Ericsson calls this process automaticity. Ericsson (2008) contends that expert performers by contrast, counteract automaticity by creating increasingly complex mental representations with the goal of improving their performance and therefore remain within the cognitive and associative phases. This means that expert performers actively set new goals and higher performance standards and deliberately construct and seek out training situations in order to
exceed their current level of performance. However, some individuals at some point give up their commitment to excellence; stop participating in deliberate practice which leads to arrested development and automation, or the middle arm of the graphic.

Another key to becoming an expert is the ability to self-monitor and self-adjust. Ericsson (2006) states that "The future expert performers need to acquire representations and mechanisms that allow them to monitor, control, and evaluate their own performance, so they can gradually modify their own mechanisms while engaging in training tasks that provide feedback on performance, as well as opportunities for repetition and gradual refinement" (p. 61). Ericsson (2008) also states that after years of daily practice, aspiring experts are able to monitor their own performance meaning they can take over the evaluative activity of a teacher or coach. Ericsson (2006) also states that "The principal challenge to attaining expert level performance is to induce stable specific changes that allow the performance to be incrementally improved" (p. 698). The focus here is on making small, steady improvements that can lead to great overall changes and improvements.

Throughout this section, information from Ericsson has defined a method for creating experts. This method is contingent on the implementing a process that meets the following criteria:

1. A feedback process that allows individuals to evaluate their own performance or their perceived performance versus their peers.
2. A feedback tool that is specific in its skill identification and breakdown.
3. A means to deliver feedback that helps to develop skill sets while fostering self-reflection, self-monitoring and self-modifying practices. An essential component
of developing expertise is the development of dispositions that lead to reflection, monitoring and modification.

4. Skills must be identified that can be observable and evaluated. The important component here is that the skills are simply not evaluated as a checklist of being “present” or “absent” but on a rubric or scale of implementation level. Implementing a process that incorporates these key concepts into teacher supervision and evaluation may hold the potential to develop expert teachers.

While the majority of this section was dedicated to reviewing the work of Ericsson, the concept of deliberate practice can also be found in influential works by Kerry Patterson and Peter Senge albeit under different terms. Patterson (2008) who is an innovator in corporate training and organizational performance, and co-author of three immediate “New York Times” bestsellers: *Influencer: The Power to Change Anything, Crucial Conversations* and *Crucial Confrontations*, uses the term vital behaviors in a very similar fashion to that of Ericsson’s deliberate practice. “Enormous influence comes from focusing on just a few vital behaviors. Even the most pervasive problems will often yield to changes in a handful of high-leverage behaviors. Find these, and you’ve found the beginning of influence” (p. 23). Senge (1990), who created the notion of a learning organization and wrote the influential book titled *The Fifth Discipline*, identifies the power of how focusing on small actions can have a considerable impact. “Small, well focused actions can sometimes produce significant, enduring improvements, if they’re in the right place” (p. 64). Both authors identify the idea, much like deliberate practice, that the identification and improvement of very specific skills can have a significant impact.
**Previous research on expertise and deliberate practice.**

Ericsson, Krampe, and Tesch-Romer (1993) present a theoretical framework that attempts to explain the relationship between practice and expert performance. The empirical evidence offered to support the concept of deliberate practice was collected in studies involving musicians. This study was selected because it is easier to use a discipline, such as music, in which specific skills can be isolated more easily to introduce the concepts and theory of expertise development. After the concepts and ideas related to expertise and deliberate practice have been clearly established, another empirical study that focuses on teachers and teacher expertise development will be presented.

Ericsson et al., (1993) used their theoretical framework on deliberate practice to make predictions about the participants involved in a study that was conducted at the Music Academy of West Berlin and consisting of 10 students that had potential to become international soloists (“best violinists”), 10 students who were “good violinists” and 10 students who were specializing in the violin in music education or “music teachers”. To obtain data on developmental history of outstanding violinists, 10 middle-aged violinists who belonged to reputable orchestras were also interviewed. Predictions were made about the participants, developmental history, current levels and habits of practice and evaluations regarding the role of deliberate practice

All of the violinists were interviewed three times. Participants were asked to estimate how many hours per week they practiced alone for each year since they began playing the violin as well as the start of practice, sequence of music teacher and participation in competitions. Subjects were also asked to estimate how much time they spent on various activities which included 10 categories of everyday activities and 12 categories of musical
activities. Subjects were also asked to rate each on a scale from 0-10 on three dimensions. First they were asked to rate the relevance of the activity to improving performance on the violin, second they were asked to rate the effort required and finally they were asked to rate how enjoyable it was.

During the second interview, subjects answered questions about practice and concentration and they were also asked to recall all of their activities they engaged in the previous day using a special diary sheet that was broken up into 15 minute intervals. Following the second session, the subjects were asked to keep a diary of their activities for a week and code the activities into one of thirty different categories. During the third session, subjects were allowed to ask any questions about the coding and then the interviewer asked questions about the subjects’ developmental life goals.

According to subjects’ retrospective estimates, the best violinists had accumulated an average of 7,410 hours of practice, the good violinists had accumulated an average of 5,301 hours and the music teachers averaged 3,420 hours. There was a complete correspondence with the skill level of the groups and their average accumulation of practice time alone with the violin. The study showed that individual differences in adult levels of performance were correlated with the past and current amount of deliberate practice.

According to Ericsson and Charness (1994), the framework of deliberate practice can be applied to other domains. In several different areas, expert performers were found to frequently engage in high levels of selected activities. Characteristics of both the level of engagement and the nature of the activity itself parallel the concept of deliberate practice.

Dunn and Shriner (1999) conducted a study that applied the concepts of deliberate practice to teaching. The guiding questions of the work were, “Does the framework of
deliberate practice provide a useful approach to understanding the development of expertise in the ill-structured domain of teaching?” and “Does considering the domain of teaching from this perspective provide insight into the factors that may mediate the development of expertise in teaching?” (p. 632).

Dunn and Schriner (1999) believed that the foundation of Ericsson and Charness (1994) deliberate practice theory refers to activity that provides optimal opportunity for learning and skill acquisition. For chess players deliberate practice is studying grand masters previous games and predicting their next moves. For scientists, deliberate practice is the constant revision and restructuring of their presentations of ideas (Dunn & Shriner, 1999). Dunn and Schriner (1999) believe that deliberate practice for teachers should satisfy the following conditions proposed by Ericsson et al., (1993);

1. teachers should perceive the behaviors as highly relevant to improving teacher effectiveness;
2. teachers should acknowledge that considerable effort is required to initiate and maintain behaviors over time;
3. teachers should perform the behaviors frequently;
4. teachers do not need to find the behaviors enjoyable.

Dunn and Schriner (1999) contend, “It should also be reasonable that teachers can learn by engaging in these behaviors and that they can adapt and restructure their performance as a result of them” (p. 634).

Data were collected using a questionnaire that contained 15 questions about activities related to teaching. Teachers were asked to rate the activities on a scale from one to nine in the areas of relevance, effort and enjoyment. A total of 201 questionnaires were distributed
with 142 being returned. The study focused on activities that were rated highly relevant to improving performance, thought to require considerable effort and performed frequently. According to Dunn and Schriner (1999) the activities that reflect the characteristics of deliberate practice are:

1. preparing materials for instructional activities,
2. mentally planning instructional strategies and activities,
3. evaluating student progress using graded, written work and projects,
4. informally evaluating students through observation and non-grade performances
5. written planning,
6. evaluating student progress using teacher-made tests.

The common theme that the Dunn and Schriner found was in the planning and evaluation process of teaching. While the theoretical framework of the study is sound it could be argued that the methods used to analyze the data were not sound. The Dunn and Schriner analysis focused solely on those activities that were rated as less enjoyable and took great effort.

It could be argued that Dunn and Shriner took Ericsson too literally in his statement about deliberate practice and its lack of enjoyment. To review, Ericsson (1993) stated that when individuals participate in deliberate practice, with an end in mind, the isolated activity may not or may not be considered enjoyable. With this thought process, deliberate practice cannot be enjoyable. Consider an athlete who practices shooting free throws or performing a very specific weight lifting exercise. While the activities are not as enjoyable as playing in a game, they are likely still activities that the athlete enjoys. The key to deliberate practice is that people are working outside of their comfort zone which may or may not be enjoyable.
As it was previously noted, Ericsson (1996) stated that deliberate practice in and of itself may not be enjoyable because people are attempting to work outside of their comfort zone. The enjoyment comes in the development and enhancement of the overall performance (Ericsson, 1996). The researchers’ emphasis on the aspect that deliberate practice is not enjoyable is a flaw.

Dunn and Schriner (1999) also conducted a second study based on their results from the previous study. The second study attempted to understand how teacher engagement in planning and evaluation activities helped with self-improvement. The two research questions addressed were, “What more can we learn about the nature and dimensions of these activities that may support their identification as deliberate practice for teachers?” and “How much time do teachers invest in these activities and what are the perceived outcomes?” (p. 638).

Dunn and Schriner (1999) conducted a qualitative study in which a total of eight teachers from an identified 19 teachers volunteered to participate. Teachers needed to have at least 10 years of experience, be considered good teachers, and taught in a self-contained classroom. Data were collected by using daily activity logs and qualitative interviews. Dunn and Shriner’s major findings were as follows:

1. Mindfulness and effort impacted the value to teachers engaged in planning and evaluation.
2. Evaluation activities provided learning opportunities for teachers to alter their teaching.
3. Informal evaluation is continuous.
4. Teachers could report when they did mental planning.
Again, Dunn and Schriner’s insistence that deliberate practice is not enjoyable caused them to dismiss participant’s interactions with other teachers (that the participants themselves deemed highly relevant to improve effectiveness) as deliberate practice because participants reported it as enjoyable and that it took minimal effort. This is a limitation of the study. Dunn and Schriner concluded that it is “because of the cognitive nature of activities that contribute to the increase in teacher effectiveness it is more difficult to capture and assess deliberate practice for teachers than performers in a number of domains” (p. 644).

Dunn and Schriner (1999) conclude that a number of factors may challenge the ease in which deliberate practice can explain the development of teaching expertise.

1. Teaching is an “ill-structured knowledge domain in which clear standards of high level performance are lacking” (p. 647).
2. No standard expectation or role for coaches or mentors which limits feedback that could be used for self-improvement
3. Teachers “do not ‘practice’ teaching in order to improve but instead engage in patterns of planning, evaluation, and revision so that students improve” (p. 647).
4. The amount of support, recognition, and encouragement for improvement varies which can impact the advancement in teaching practices.

It could be argued that the implementation of a comprehensive standards based teaching framework would help to define clear standards of high level performance which would help to alleviate the first concern mentioned by Dunn and Schriner. Also, the perceived issue of lack of feedback could be addressed through self-evaluation and reflective process that results in continual internal feedback. The next concern the researchers raise about teachers “not practicing” is a self-imposed limitation that can simply be overcome by changing the
perspective of teachers. The final issue raised underscores the need for a more systematic model. Dunn and Schriner (1999) state that:

Teachers don’t “practice” that they teach. It may be being mindful during these activities—mindful in what was effective, what was not, of changes that may lead to improvement. It may be choosing to be effortful—making changes when teaching seems to be going well, trying to find an even better way, trying to reach a particular child, trying to solve a particular problem. Perhaps it is this approach to activities inherent in teaching that, when exemplified on a regular basis over many years, both leads to and maintains teaching expertise. (p. 647)

In this excerpt, Dunn and Schriner are clearly linking improvement to metacognition (when they use terms such as “mindful”) and growth mindset (when they allude to “effortful” and “trying to find an even better way”). Both the concepts of metacognition and growth mindset will be reviewed in the following pages. It appears that Dunn and Schriner found the deliberate practice framework as useful and relevant in its application to teaching even though the application of the model does have the previously stated challenges.

**Growth Mindset**

An integral part of adopting a teaching growth model for teacher supervision and evaluation is the belief that teachers can improve and reach levels of expertise if provided with the proper tools and processes. This belief is important for both the teacher and administrator. Stanford professor and a leading researcher in social and developmental psychology, Dr. Carol Dweck has centered her work on the concept of growth mindset. According to Dweck (2008) the growth mindset establishes the foundation for individual improvement by emphasizing internal locus of control over external locus of control and that
people can achieve higher levels of performance if they believe that they can through persistence, perseverance, and dedication.

In a longitudinal field study conducted by Blackwell, Trzesniewski, and Dweck (2007) the researchers examined the relation between the theory of intelligence and achievement. This study followed students through junior high school. Previous research focused on one-time assessments.

In the study, 373 students were followed for five years. At the beginning of the fall term, participants completed a questionnaire assessing theory of intelligence, goals, beliefs about effort, and helpless versus mastery-orientated responses to failure. Mathematic achievement test scores from the previous year were obtained. Each year, at the end of fall and spring terms, mathematic scores of the participants were obtained. The study found that junior high students who thought intelligence was malleable affirmed learning goals more strongly, and were more likely to believe that working hard was necessary than students who thought intelligence was fixed. Also students with these beliefs were more likely to say they would invest more effort or change strategies than students who had the fixed mindset (Blackwell, et al., 2007).

Furthermore, in a recent study by Heslin, Latham, and Vane Walle (2005), Dweck’s work was extended to include adults and adult managers. The researchers were able to generalize Dweck’s findings on student based research to managers performing a task relevant to their managerial role. Heslin, et al., (2005) showed that fixed mindset managers were less likely to change their initial impressions while growth mindset managers were able to remain more data driven in their assessments. The study also revealed that a fixed mindset manager is less likely to alter either a positive or negative initial impression. This could lead
to employees becoming resentful, unmotivated, and likely to leave an organization because either their improvements aren’t recognized or their peers sub-par performances aren’t addressed.

In a recent personal interview with Doug Reeves, the chairman and founder of Center for Performance Assessment (personal communication, November 18, 2009), he commented on Dweck’s work and the concept of the growth mindset. Reeves summarized Dweck’s work by saying the following:

If adults think that, they are who they are, or either you get it or you don’t (fixed mindset), it is problematic. If people think either, you’re good at math or you’re not, or either you’re good at leadership or you’re not, then they never practice because they assume that you’re just naturally talented at it. So people tend to get stuck in who they are. That is the definition of amateur mediocrity. Professionals by contrast, whether they are a professional musician or professional athlete or professional leader actually practice things and they spend thousands of hours developing who they are (growth mindset). People practice very specific things such as appreciating their colleagues or they practice giving feedback and they get better at it. They are not better because they have some mystical gift from God but they are better because they practiced a very specific skill. (personal communication, November 18, 2009)

If teachers adopt the growth mindset, then they believe that they think, learn and achieve because they identified what was important and because they practiced very specific skills that got them better. Reeves also goes on to say:

By contrast, if teachers believe that their ability is fixed, then they will be lucky enough to encounter a few teachers who practice really hard and are very successful.
This also means that because the “fixed mindset” teachers won’t have analyzed how the “growth mindset” teachers achieved their success they will call them gifted and they will make a small difference within their little sphere. But schools never get to the system level effective leadership if we don’t adopt the former perspective that is the growth mindset. To be effective, supervisors and teachers must adopt the growth mindset in order to pursue real change. (personal communication, November 18, 2009)

Reeves comments tie together the concepts of the growth mindset (Dweck, 2008) and deliberate practice and expertise (Ericsson, 2006; Ericsson & et al., 1993). Reeves believes that teachers and administrators must adopt the growth mindset in order to create real change.

Perhaps the largest flaw with most teacher supervision and evaluation is that it fails to develop the dispositions of self-monitoring, self-reflection and self-modification in teachers. These are the dispositions that are related to growth mindset (Dweck, 2008) and deliberate practice (Ericsson, 2006). The growth mindset leads to the belief that people can reach higher (expert) levels of achievement. Deliberate practice fosters qualities that lead to expertise and continuous improvement. According to Ericsson (2006), the emphasis on deliberate practice is important because expert performers often continue to engage in deliberate practice in order to improve. This is important because a large body of work shows that the accumulated amounts of deliberate practices are related to the attained level of performance (Ericsson, 2006). If there is a supervision and evaluation process that can foster the development of deliberate practice it has the potential to create teacher experts (Marzano, et al., 2011).
Review and Summary of Themes of Expertise Development

The key concepts that were highlighted in this section were;

1. The definition and importance of studying expertise. According to Ericsson (2006) expertise “refers to the characteristics, skills, and knowledge that distinguish experts, who are consistently able to exhibit superior performance for representative tasks in a domain” (p. 3). Studying expertise is important for teachers because it can lead to improvements in their teaching which can lead to higher student achievement.

2. The concept of deliberate practice which is defined as intense purposeful practice over an extended period of time with focus on specific skills (Ericsson et al., 1993). Furthermore, expertise is developed through intentionally focusing on improving very specific skills. These skills should be allowed to improve incrementally by engaging in deliberate practice which should be outside of the participant’s comfort zone. Furthermore, the ability to self-monitor one’s own performance is a key aspect that helps to facilitate the development of expertise (Ericsson, 2006).

3. The importance of being able to self-monitor and self-adjust in order to acquire expertise (Ericsson, 2006). The ability for individuals to monitor, control and evaluate their own performance is a key aspect of reaching expert levels of performance.

4. The definition and importance of the growth mindset. The growth mindset creates the foundation for individual improvement by emphasizing internal locus of control over external locus of control and that people can achieve higher levels
of performance if they believe that they can through persistence, perseverance, and dedication (Dweck, 2008).

These key points help to conceptualize how these pieces fit in with teacher supervision and evaluation. While the next section will delve into the current issues of teacher supervision and evaluation, this opening section on expertise development and growth mindset helped to set the foundation for pieces necessary to be in place to help create a teacher growth model. First, teachers and administrators need to understand that expertise can be developed through deliberate practice. This concept needs to be grounded in the concept of growth mindset that puts an emphasis on internal locus of control. Second, teachers need to participate in a process that allows them to practice specific skills while developing their ability to self-monitor their own performance. Finally, the skills or behaviors that teachers focus on should be improved by working out of their comfort zone and attempting new ideas that will allow them to improve incrementally.

**Review of Research and Theory about the Effectiveness of Teacher Supervision and Evaluation**

**Section Introduction**

The following section on the effectiveness of teacher supervision and evaluation summarizes the literature that was reviewed with particular emphasis given to Weisberg (2009), and Donaldson (2009). The key concepts that will be highlighted in this section will be:

1. Current models of supervision and evaluation have not led to expertise development (Donaldson, 2009; Schmoker, 1992; Weisberg, et. al., 2009).
2. Lack of feedback is an issue with the current supervision models (Marshall, 2009; Weisberg, et. al., 2009).

3. There should be a focus placed on teacher growth (Marzano, et. al., 2011).

4. Current models of supervision and evaluation have not led to expertise development. In most cases current evaluation practices have been found ineffective (Donaldson, 2009; Schmoker, 1992; Weisberg, et. al., 2009).

5. Lack of feedback is an issue with the current supervision models (Marshall, 2009; Weisberg, et. al., 2009). There are an inadequate amount of visits (Marshall, 2009) and visits are short and lack actionable feedback (Weisberg, et. al., 2009).

This section will also contain literature from other researchers and authors that will be summarized to help support these main ideas along with other related concepts and theories. The literature on supervision and evaluation was reviewed to help identify the current issues and concerns associated with supervision and evaluation.

**Criticisms of Current Supervision and Evaluation Models**

There is consensus in the literature that researchers have shown that the single most important school-related factor responsible for increasing student achievement are effective teachers (Marzano, 2000; Sanders & Horn, 1998; Haycock & Education Trust Washington DC.; Wright, 1997). The findings of the researchers are summarized succinctly by Wright (1997):

The results of this study will document that the most important factor affecting student learning is the teacher. The immediate and clear implication of this finding is that seemingly more can be done to improve education by improving the
effectiveness of the teacher than by any other single factor. Effective teachers appear to be effective with students of all achievement levels regardless of the levels of heterogeneity in their classes. If the teacher is ineffective, students under that teacher’s tutelage will achieve inadequate progress academically regardless of how similar or different they are regarding their academic achievement. (p. 63)

Wright also goes on to declare that not even prior achievement of students is as an important of factor as the teacher on student achievement. If these findings are accepted, then there should be an emphasis on growing and developing effective teachers. Effective teacher evaluation that places an emphasis on development and teacher growth may hold the key to the systematic improvement that the public is seeking in the American education system. Creating positive behavioral changes in the teaching process would give every educational program or initiative a better chance of success.

Almost twenty years ago, Mike Schmoker (1992) made this statement about teacher evaluation,

Research has finally told us what many of us suspected all along: that conventional evaluation, the kind of overwhelming majority of American teachers undergo, does not have any measurable impact on the quality of student learning. In most cases, it is a waste of time. (p. 24)

The literature is fairly consistent in its views on the effectiveness of previous evaluation models. However, more recent research has pointed towards teacher evaluation and supervision as holding the key to improving the American educational system. Donaldson (2009) a researcher, who studies policies and practices related to teacher quality and teacher leadership and author of a recent report entitle So Long Lake Wobegone, states that teacher
evaluation can potentially improve instructional effectiveness and student learning by providing high-quality guidance and feedback which can improve teacher instruction. Through the utilization of feedback, supervision has the potential to impact teacher effectiveness and student achievement.

As noted by Mathers and Olivia (2008) in a report entitled *Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts*, teacher evaluation has been identified as a possible remedy to increase student achievement. In addition, teacher evaluation has surfaced recently as a tool to promote teacher professional growth. As educators and school districts research to find programs to meet the needs of their students, the one constant variable that all programs hold in common is the need to have effective teachers in the classrooms. The success and failure of programs can be traced directly back to the implementation integrity and ability of the teacher to carry out the program’s goals and initiatives. Thus, improving teacher effectiveness holds the key to success for all of our schools and educational programs. Improved teacher supervision and evaluation may be the vehicle to improve the effectiveness of our teachers.

As supervision and evaluation models evolved, researchers have struggled to create a systematic process that generated usable feedback that addressed the nuances and complexities of teaching. Few models, if any, have been identified that have proved to be manageable for supervisors and also provide meaningful feedback for teachers. Donaldson (2009) agrees that while historically supervision and evaluation has failed to make a significant impact on either teacher practices or student achievement the time and conditions may finally be right to improve the evaluation process. Donaldson (2009) states that;
Historically, teacher evaluation has not substantially improved instruction or expanded student learning. The last major effort to reform teacher evaluation, in the 1980s, petered out after much fanfare. Today there are reasons to believe that conditions are right for substantive improvements to evaluation. Important advances in our knowledge of effective teaching practices, shifts in the composition of the educator workforces, and changes in the context of public education provide a key opportunity for policymakers to tighten the link between teacher evaluation and student learning. (p. 1)

The convergence of research based practices on both teaching and learning may have finally opened the door to effective supervision and evaluation.

Supervision and evaluation can have a broad impact on student achievement. Scriven (1995), who has over 400 publications in the areas of critical thinking, technology studies, computer studies, and evaluation and is an ex-President of the American Educational Research Association, and of the American Evaluation Association, captures this important concept in the following quote about the importance of effective supervision and evaluation:

Collectively, in one high school, during the career of one principal, the effect of incorrect advice and counseling, incorrect selection, incorrect promotion and retention, will add up to very large adverse effects on the education of 20,000 students. These are avoidable effects. (p. 118)

Poor supervision and evaluation among other ineffective practices can have a cumulative effect that can be devastating to the future of thousands of students. The fact that these are avoidable, and in many cases correctable problems are all the more reason to find the resolve and resources necessary to create an evaluation system that helps to improve teachers.
The Importance of Data Collection and Feedback

Currently, supervision, and evaluation can be separated into two types of evaluations--formative and summative. Mathers and Olivia (2008) state that formative evaluations are meant to provide feedback to teachers on how to improve and what types of professional development will enhance their practice. Summative evaluations are used to make final decisions on factors such as salary, tenure, personnel assignments, transfers and dismissals. While information can be gathered in multiple ways, classroom observations are used to collect information about teachers' instructional decisions and practices (Muijs, 2006). Danielson (1996) argues that if observations are done effectively and correctly, the result should be a great deal of information about the instructional strategies, professional behaviors, and delivery of content knowledge that affect student learning.

A critical component of teacher supervision and evaluation is the ways in which data are collected. Danielson (2007), who is a former economist and an educational consultant who has served as a consultant to hundreds of districts, universities, intermediate agencies, and state departments of education in virtually every state, states that, “Without a framework, the structure is reduced to whatever the mentor, coach or supervisor has in her head, and it thus reflects the personal beliefs that individual holds about teaching, regardless of whether these have ever been made explicit” (p. 12). This has lead supervision and evaluation from an “inspector” model of the pre-1900s to the current emergence of standards based teacher evaluation practices (Danielson & McGreal, 2000). However, even with the emergence of standards based models, supervision and evaluation has not been viewed as an effective means to improve teacher quality.
A recent report, titled “The Widget Effect” (Weisberg, Sexton, Mulhern, & Keeling, 2009) described the results of an analysis comparing the evaluation practices of 12 districts across four states. The study included approximately 15,000 teachers, 1,300 administrators, and more than 80 local and state education officials. The authors stated there is little or no differentiation of excellent teaching from good teaching, good teaching from fair teaching, or fair teaching from poor teaching. The authors call this the “Widget Effect” which is a tendency to treat all teachers as generally interchangeable. Weisberg et al., state that this does not promote differentiated professional development nor does it allow for poor performance to be identified or addressed.

According to Weisberg, et al., (2009) current evaluation systems have failed to address the need and desire of teachers for feedback. “The Widget Effect” report stated that; Nearly 3 of 4 teachers went through the evaluation process but received no specific feedback about how to improve their practice. This is true even for novice teachers who are most in need of actionable feedback as they learn their craft--only 43 percent of teachers in their first three years had any developmental areas identified. (p. 14)

This lack of feedback is a problem because of the potential benefits that quality feedback offers. In his studies on student achievement, Hattie (1992) noted that “the most powerful, single moderator that enhances achievement is feedback” (p. 9). Costa and Garmston, (2002) found that feedback that is data-driven, value-free, necessary, and relevant, activates self-evaluation, self-analysis, and self-modification. This concept ties in directly with Ericsson’s (1993; 1996) notion of expertise development that incorporates the components of feedback and the ability to self-monitor. In order to develop better teachers it is necessary to collect and deliver the appropriate feedback to teachers. Fortunately, a study conducted by Mathers
and Olivia (2008) revealed that teachers are open to feedback. “Teachers have consistently reported the desire for feedback on how well or poorly they are implementing instructional strategies and delivering critical content” (p. 12).

The Widget Report (Weisberg, et al., 2009) also reveals that instructional leaders can lose opportunities to develop young teachers and set low standards through the failure to rigorously pursue evaluation opportunities that lead to feedback. Weisberg and his colleagues state that:

Novice teachers begin receiving a rating when they start their career or within a few years of being hired, with 66 percent of novice teachers receiving a rating greater than "satisfactory" on their most recent performance evaluation. By giving novice teachers high ratings from the day they begin teaching, schools communicate inattention to and low expectations for instructional performance. Furthermore, they miss a critical window of opportunity to focus new teachers on their instructional strengths and weaknesses during a formative point in their careers. Instead of meaningful feedback about what they are doing right and wrong in their instructional practice, new teachers mostly get the message that their actual performance has little bearing on how they are rated. (p. 15)

This gives the misconception that teaching as a profession is easy and that there is no need to work to get better. In his work on expertise development, Ericsson (2006) points out that this can be a limiting factor to teacher potential. "Until most individuals recognize that sustained training and effort is a prerequisite for reaching expert levels of performance, they will continue to misattribute lesser achievement to the lack of natural gifts, and will thus fail to reach their own potential” (p. 698). A majority of the current teacher supervision and
evaluation models are their own worst enemy because they perpetuate a myth that is damaging to a profession and to the education of our youth (Donaldson, 2009, Weisberg, et al., 2009).

Meaningful feedback is the missing link in most teacher supervision and evaluation systems. Ericsson (2006) states that, "In absence of adequate feedback, efficient learning is impossible and improvement only minimal even for highly motivated subjects. Hence mere repetition of an activity will not automatically lead to improvement in, especially, accuracy of performance" (p. 367). There is consensus in the literature that a major problem with supervision is the lack of actual time spent engaging in the actual process (Donaldson, 2009; Marshall, 2009; Weisberg et al., 2009). According to Weisberg, et al., (2009) "Most teacher observations are based on two or fewer classroom observations totaling 76 minutes or less" (p. 20). Kim Marshall (2009) depicted a similar finding in a stunning graphic. If it is assumed that teachers teach 180 days, five periods a day, that equates to 900 periods of teaching. Teachers are typically only evaluated on one of those class periods. The following figure depicts each teaching period with a single box. The black box indicates the period the teacher was observed.

Each box represents a teaching period within a school year. Typically teachers teach five periods per day for approximately 180 days per year which equates to 900 periods in a year. The graphic depicts all 900 teaching periods with the black box representing the one class period the teacher is formally observed.

The Marshall (Marshall, 2009, p. 22) graphic (Figure 4) depicts the common flaw in typical current supervision and evaluation processes. If this isn’t revealing enough, consider the idea that if teachers are only evaluated every third or fourth year it would mean that
teachers are only typically seen one out of every twenty-seven to thirty-six hundred class periods. This idea is supported by *Quality Counts 2008*, a report published by Education Week that states only 12 states require annual teacher evaluations. The combination of lack of frequency of observations combined with a lack of meaningful feedback leads to a systematic de-professionalization of teachers. The characteristics of “The Widget Effect” were summarized in the following manner by Weisberg and his colleagues (2009):

- Evaluations are infrequent and done casually or carelessly.
- Teachers expect to be given the highest possible ratings even in their initial years of teaching.
- There is little feedback given to teachers and professional development is not aligned to the needs identified in the evaluations.
- Instructional leaders are poorly trained and districts do not place a high priority on the process.
- Finally, teachers who do receive feedback for improvement tend to feel singled out unfairly.

The challenge lies in finding a comprehensive framework that allows for both a formal structure and flexibility for teachers. The process must also provide meaningful feedback for teachers and be manageable for instructional leaders. Along with being manageable, it also needs to be a priority for the district. No longer can supervision be approached as simply a mindless duty to check off the list for instructional leaders. Most teacher evaluation systems lack actionable feedback or a coach or a teacher who can help individuals reach levels of expertise. The need for feedback to help improve performance is essential if supervision and evaluation is going to lead to improved teacher effectiveness and student achievement.
The Widget Effect (Weisberg, et al., 2009) also revealed the following issues with current evaluation systems;

- Evaluators do not spend more time to observe or give feedback to teachers identified as mediocre or poor performers than they spend with highly rated teachers. “Teachers receiving lower than the highest rating report the same number of observations as their more highly rated colleagues and the same amount of informal feedback” (p. 21).

- Disturbingly, “73 percent of teachers surveyed said their most recent evaluation did not identify any development areas, and only 45 percent of teachers who did have development areas identified said they received useful support to improve” (p. 9).

- Not only are current evaluation practices not identifying areas of need, they are doing little, if anything, about it when it is identified. It appears that schools have an inability to assess instructional performance accurately or to act on the information in meaningful ways.

- As previously mentioned, most evaluations are one based on viewing only 1/900th of periods taught (Marshall, 2009), or 76 minutes of total observation (Weisberg, et al., p. 2009). These observations then typically result in a checklist evaluation with a brief post conference.

The literature revealed a need to collect data in a sustainable way and to use the data to create differentiated and actionable feedback that is focused on teacher improvement. This review contributes to the argument of building a system that is based on teacher development and growth.
Developing a System Based on Teacher Growth

The literature revealed that even though the current supervision and evaluation system are failing the students (Weisberg, et al., 2009); supervision and evaluation can impact the most important factor in student learning; the teacher (Donaldson, 2009; Weisberg, et al., 2009). Marzano, et al., (2011) believe that school districts must create a supervision and evaluation process that leads to feedback for teachers and results in teacher growth that allow school districts to become developers of teachers. These researchers also believe that development can only come through support, specific focus on skills and feedback. In a separate work, Marzano (2010) states that if teachers are committed to growing as professionals and instructional leaders are committed to making the supervision process a priority then teacher effectiveness and student achievement can be improved.

Review and summary of themes of teacher supervision and evaluation

The key concepts that were highlighted in this section were;

1. Current models of supervision and evaluation have not led to expertise development. In most cases current evaluation practices have been found ineffective (Donaldson, 2009; Schmoker, 1992; Weisberg, et. al., 2009).

2. Lack of feedback is an issue with the current supervision models (Marshall, 2009; Weisberg, et. al., 2009). There are an inadequate amount of visits (Marshall, 2009) and visits are short and lack actionable feedback (Weisberg, et. al., 2009).

3. There should be a focus placed on teacher growth (Marzano, et. al., 2011).

These key points help to conceptualize how these pieces fit in with teacher supervision and evaluation. While the next section will delve into the two specific comprehensive teaching frameworks that the study will utilize, this section on supervision and evaluation helped to
set the context and identify components necessary to be in place to help create a teacher growth model. First it needs to be recognized that current models of supervision and evaluation have proven to be largely ineffective. Second, feedback needs to be delivered that is differentiated and actionable for teachers that can be used to facilitate deliberate practice. Finally, an emphasis needs to be placed on teacher growth. The next section will discuss the two comprehensive teaching frameworks that were utilized in this study.

**Review of Research and Theory about Selected Comprehensive Teaching Frameworks**

**Section Introduction**

The following section on selected comprehensive teaching frameworks summarizes the literature that was reviewed with particular emphasis given to Danielson (1996, 2007) and Marzano (2003, 2007, 2010; Marzano, et al., 2011). The key concepts that will be highlighted in this section will be;

1. The potential impact of an effective supervision and evaluation system (Odden, et al., 2004; Marzano, 2010b).

2. The importance of and rationale for using a comprehensive framework (Danielson, 1996; 2007; Marzano, et. al., 2011).

3. The Charlotte Danielson Framework for Teaching (Danielson, 1996, 2007) and the Marzano Observational Protocol (Marzano, et. al., 2011) are introduced and highlighted as models of comprehensive teaching frameworks.

**Potential Impact of Comprehensive Teaching Frameworks**

Odden, et al., (2004) wrote that current supervision and evaluation practices often have limited impact on teaching and learning at the classroom level. He goes on to say that
the outcome of an effective evaluation system could have a wide ranging impact on the educational system. Odden recommends that educational researchers and practitioners should seek a legitimate and reliable process to measure teacher behaviors that impact student learning. He concludes by stating that the development of such a process could impact a variety of important educational purposes including instructional improvement, accountability and professional development.

During a presentation focusing on supervision and instruction, in April of 2010, Marzano (2010) spoke about the potential impact that an effective evaluation system based on teacher growth could have on the individual teachers and classrooms. Marzano stated that a small incremental improvement in teacher effectiveness can have a positive effect on student achievement. If teachers increased two percentile points every year, over a ten year period it would result in an eight percentile gain in student achievement. Marzano also stated that individuals need deliberate practice to become an expert (Marzano, 2010). Marzano et al., (2011) believe that teacher expertise can be developed through the use of feedback and the implementation of deliberate practice.

As was previously noted, feedback is essential in helping to develop expertise (Ericsson, 1993; 1996) yet current teacher evaluation systems have failed to address this need (Weisberg, et al., 2009). An essential component of delivering appropriate feedback is the need for a comprehensive teaching framework. Danielson (2007) believes that “Without a framework, the structure is reduced to whatever the mentor, coach or supervisor has in her head, and it thus reflects the personal beliefs that individual holds about teaching, regardless of whether these have ever been made explicit” (p. 12).
What is needed is a systematic model that can deliver actionable feedback to teachers to help them develop through the application of deliberate practice. Danielson and McGreal (2000) state that, a comprehensive framework is used teachers improve communication because they’re using a common language. Also the authors state that by using the framework, it is easier to identify areas that need improvement.

The literature revealed that the use of a framework can aid in teacher reflection. Danielson (1996) states that, “Research has clearly demonstrated that the effects of reflection improve teaching. Using a framework to guide such reflection enhances the value of the activity and makes teaching more purposeful, thoughtful, and rewarding” (p. 53). This notion is also echoed by Marzano and associates (Marzano, 2007; Marzano, et al., 2011), if educators used a common framework to guide reflection, it has the potential to greatly improve teacher effectiveness through improved reflection and the ability to communicate more clearly with the use of a common language.

While the literature confirmed that there have been multiple comprehensive teaching frameworks introduced and implemented over the last few decades (MacGregor, 2007), this literature review will focus on the two comprehensive teaching frameworks that are pertinent to this particular research project. The two comprehensive teaching frameworks that will be reviewed are Charlotte Danielson’s Framework for Teaching and Robert Marzano’s Observational Protocol. The Danielson model was chosen due to its popularity in the United States (Marzano et al., 2011; Milanowski, 2004). The Marzano model was chosen due to its unique and specific focus on classroom teaching strategies as well as its specificity.
The Danielson Framework for Teaching

“The Danielson Framework for Teaching is a research-based set of instructional components that are grounded in a constructivist view of learning and teaching and are aligned to the 10 principles of the Interstate New Teacher Assessment and Support Consortium” (Danielson, 2010, online paragraph 5). This research based model has been the most widely used approach for standards-based teacher performance and evaluations (Milanowski, 2004). First published in 1996, the framework grew from professional conversations during the development of Praxis III training program for assessors. It became evident during the development of the Praxis III training program that there was a need to develop a comprehensive teaching framework providing a common language that gave educators a format in which they could use to both reflect and to frame conversations about their teaching with others (Danielson, 2007).

The Danielson model was introduced to address the following main areas of deficiency (Danielson, 2011a; Danielson & McGreal, 2000).

1. Outmoded evaluative criteria (“writing objectives on board” versus “teaching for understanding,” usually in the form of checklists)

2. Simplistic evaluative comments (“needs improvement” and “outstanding” without consistency or where to focus improvement efforts)

3. Few shared values about teaching (no common language)

4. Lack of precision in evaluating performance (use of simple rating scales such as “satisfactory” or “needs improvement” or scales rated from “1 to 4”) 

5. One-way communication (the supervisor documents and gives feedback with no input from the teacher, the teacher is passive)
6. No differentiation (same expectations for novice and experienced teachers)

7. Limited consistency among evaluators.

Danielson (2007) outlined the features of the framework that “ensure both its validity and its applicability to a wide range of instructional settings” (p. 19).

1. Comprehensive: The framework represents an attempt to “describe all of teaching, in all its complexity. It is comprehensive, referring not only to what occurs in the classroom but also to what happens behind the scenes and beyond the classroom walls” (p. 19).

2. Grounded in research: According to Danielson, the framework is grounded in research that “seeks to identify principles of effective practice and classroom organization” (p. 20).

3. Public: The framework is publicly known which eliminates a “gotcha mentality” (p. 20). The framework is designed to promote discussion among colleagues and to allow teachers to know what observers are looking for.

4. Generic: Because of the unique interactions among teachers and students along with the many diverse settings and contexts many believe that there can be no one framework that defines teaching. The Danielson model recognizes this and attempts to identify the “powerful commonalities” beneath the unique features. The framework addresses the commonalities by not listing specific behaviors because “the behaviors themselves depend on context” (p. 22).

5. Coherent in structure: The framework addresses the complexity of teaching by dividing teaching into four domains:
   a. Domain 1- Planning and preparation
b. Domain 2- The classroom environment

c. Domain 3- Instruction

d. Domain 4- Professional responsibilities

Each of the domains contains five or six smaller components which total twenty-two components. Danielson (1996; 2007) states that the components consist of several smaller elements (76 total) which fully describe the component. Furthermore, for each component a rubric has been created that describe a range of teaching from unsatisfactory to distinguished.

In a recent study, Chicago Public Schools launched an Excellence in Teaching Pilot in an attempt to redesign how teachers are evaluated and how they receive feedback on their current performance. The two year started included 39 principal interviews and 25 teacher interviews in the first year and the second year included a case study of eight school with principal interviews at three points, assistant principal interviews at one point, focus groups with teachers, and observations of three to five teachers as they proceeded through the observation process. This study was conducted to help design ways to create meaningful feedback for teachers as well as to differentiate among teachers that were poor, good or best. For example, the Chicago system had identified 93% of their teachers as excellent or superior when 66% of Chicago schools were failing to meet state standards. The Excellence in Teaching Pilot showed classrooms that received the highest ratings on the Danielson Framework had the highest growth in test scores and the teachers that received the lowest ratings had the least amount of growth. The authors concluded that the Danielson Framework for Teaching has the potential to improve teacher evaluation systems because it can help to identify teachers in need of improvement (Sartain, et al., 2011).
Danielson (1996; 2007) contends that she purposely created a framework independent of any particular teaching methodology because she believed no single teaching approach will work in every situation. She also believes that teachers need to be able to use a variety of strategies and to be able to select the suitable strategy in order to achieve the appropriate outcome. However, Danielson (2007) also states that, “The framework does not endorse any particular style of teaching style for all teachers; it does however, enable educators to engage in conversations about the appropriateness of choices” (p. 24).

Table 2 shows an example of the framework. This example is taken from Domain 3 Instruction, Component 3b: Using Questioning and Discussion Techniques. Reviewing the element of “quality of questions,” for example, Danielson delineated what teacher practices are considered “unsatisfactory” (poor quality, low cognitive challenge, single correct responses); basic (combination of low and high quality questions, rapid succession); proficient (most questions are high quality, adequate time is provided for response); and distinguished (questions are high quality with adequate time for students to respond and students formulate many questions) (Danielson, 2007). This format is repeated for each of the elements within the Danielson Framework for Teaching.
Table 2

*Sample of Rubric from Danielson’s Framework for Teaching from Domain Three*  
(Danielson, 2007, p. 82)

**DOMAIN 3: INSTRUCTION**  
Component 3b: Using Questioning and Discussion Techniques  
*Elements:* Quality of questions • Discussion techniques • Student participation

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>LEVEL OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality of questions</strong></td>
<td><strong>UNSATISFACTORY</strong> Teacher’s questions are virtually all of poor quality, with low cognitive challenge and single correct responses, and they are asked in rapid succession.</td>
</tr>
<tr>
<td></td>
<td><strong>BASIC</strong> Teacher’s questions are a combination of low and high quality, posed in rapid succession. Only some invite a thoughtful response.</td>
</tr>
<tr>
<td></td>
<td><strong>PROFICIENT</strong> Most of the teacher’s questions are of high quality. Adequate time is provided for students to respond.</td>
</tr>
<tr>
<td></td>
<td><strong>DISTINGUISHED</strong> Teacher’s questions are of uniformly high quality, with adequate time for students to respond. Students formulate many questions.</td>
</tr>
<tr>
<td><strong>Discussion techniques</strong></td>
<td><strong>UNSATISFACTORY</strong> Interaction between teacher and students is predominantly recitation style, with the teacher mediating all questions and answers.</td>
</tr>
<tr>
<td></td>
<td><strong>BASIC</strong> Teacher makes some attempt to engage students in genuine discussion rather than recitation, with uneven results.</td>
</tr>
<tr>
<td></td>
<td><strong>PROFICIENT</strong> Teacher creates a genuine discussion among students, stepping aside when appropriate.</td>
</tr>
<tr>
<td></td>
<td><strong>DISTINGUISHED</strong> Students assume considerable responsibility for the success of the discussion, initiating topics and making unsolicited contributions.</td>
</tr>
<tr>
<td><strong>Student participation</strong></td>
<td><strong>UNSATISFACTORY</strong> A few students dominate the discussion.</td>
</tr>
<tr>
<td></td>
<td><strong>BASIC</strong> Teacher attempts to engage all students in the discussion, but with only limited success.</td>
</tr>
<tr>
<td></td>
<td><strong>PROFICIENT</strong> Teacher successfully engages all students in the discussion.</td>
</tr>
<tr>
<td></td>
<td><strong>DISTINGUISHED</strong> Students themselves ensure that all voices are heard in the discussion.</td>
</tr>
</tbody>
</table>

The researched based Danielson model has been adopted by thousands of educators around the world since its first publication in 1996 (Danielson, 2007). Other authors have acknowledged the importance and success of the framework going as far to say that “the
Danielson model must be the reference point for any new proposals regarding supervision and evaluation” due to its popularity (Marzano, et al., 2011, p. 23). At the time, the model was more specific than its counterparts and was based in research. “The level of specificity supplied in the Danielson model provided the foundation for the most detailed and comprehensive approach to evaluation to that time” (Marzano, et al., 2011, p. 24). Literature on expertise (Ericsson, 1993; 2006) has stressed the benefits of specific feedback on focused skills and behaviors that can promote expertise development. This leads to the belief that a more specific and skill focused teaching framework can help to promote the development of teaching expertise. With this belief, the next section will review The Marzano Observational Protocol.

**The Marzano Observational Protocol**

In an effort to create a systematic model that improves teaching and is complex enough to handle the nuances that the teaching profession demands, Robert Marzano (2007) created a teaching framework entitled, “The Art and Science of Teaching.” Marzano created a model that incorporates current research based practices to help guide instructional practices. However, it is not a template nor one size fits all approach. It still demands that a professional make quality decisions to maximize student learning. Marzano then developed the Marzano Observational Protocol to help guide the supervision and evaluation of The Art and Science of Teaching framework. Marzano is not alone in his identification of the two prong approach to teaching, Regan, Brubacher, and Case stated (2000) that; “Experienced educators know that teaching entails many elements of both artistic sensitivity and technical skill and that good teaching practice is impossible without both types of elements” (p. 18).
Marzano’s framework attempts to unite both the artistic touches and scientific qualities of teaching.

The strategies and behaviors utilized in the Marzano Observational Protocol have been the subject of over 300 experimental / control studies have been conducted involving over 14,000 students, 300 teachers across 38 schools in 14 districts. On the average when teachers used the classroom strategies and behaviors in the Marzano Observational Protocol, their typical student achievement increased by 16 percentile points. Greater gains can be realized if specific strategies are used in specific ways (Research Base and Validation Studies, 2011). Furthermore, in 2010 the Marzano Research Laboratory studied 61 schools in Oklahoma in order to identify elements that were consistent with successful schools (as measured by improvement status and non-improvement status). The study collected data in the forms of surveys to teachers, site administrators, parents and students along with principal interviews, classroom observations and video recorded observations of classrooms. Essentially the study researched what the schools that needed improvement did not do that the schools that met Annual Yearly Progress did do. In this study, schools that met AYP earned higher mean scores than improvement status schools in 32 of the 41 elements identified in the Art and Science of Teaching Framework ("What Works in Oklahoma Schools," 2010).

The Marzano Observational Protocol was designed to create specific and timely feedback to teachers. Marzano (2010) states that, “What is clearly needed, is a robust model of teaching that is used as the basis of feedback for teachers that does not simply assume all research-based instructional strategies should be present in every lesson.” However, Marzano (2010) cautions that not all feedback is created equal. If evaluators are not careful
they can give bad feedback to teachers. Poor feedback could be attributed to multiple factors including; lack of understanding on part of the evaluator, situations taken out of context, poor communication, lack of time spent gathering information, non-specific examples used, untimely. Bad feedback can be eliminated through the implementation of a complex model that can address the challenges and complexities of teaching if it is combined with a sustainable and systematic process.

Marzano deliberately created a model that was not intended to be used as a checklist. A simple model doesn’t work because teaching is complex; it demands a model that honors the complexity of teaching. To fully understand the Marzano Observational Protocol it is necessary to understand the framework on which the protocol is designed to evaluate. According to Marzano (2007), The Art and Science of Teaching (ASOT) framework is “offered as a model of what I believe every district or school should develop on its own” (p. 6). The Art and Science of Teaching framework is a layered approach to teaching and learning based on educational research that has identified high probability strategies for success.

Conceptually, the model is based on a set of three phases and three segments. The ASOT framework is a culmination of Marzano’s previous works; Classroom Instruction That Works (Marzano, Pickering, & Pollock, 2001), What Works in Schools (Marzano, 2003), and Classroom Management That Works (Marzano, Marzano, & Pickering, 2003). According to Marzano (2007), collectively these publications attempted to address three general characteristics of effective teaching; “the use of effective instructional strategies, the use of effective classroom management strategies and effective classroom curriculum design” (p. 5).
In analyzing Marzano’s work, Dr. John L. Brown (2008) concluded that these were the key research conclusions from *The Art and Science of Teaching*.

1. Teachers could make an enormous difference in promoting the success of all learners.
2. The three components necessary for effective classroom instruction are the sustained use of research-based effective instructional strategies, management strategies, and curriculum design strategies.
3. Students should clearly understand what and why they are learning something.
4. Students should track their own progress on clearly articulated learning goals.
5. Students should move toward conceptual understanding and independent transfer / application of key knowledge and skills.
6. Effective classrooms are collaborative partnerships that represent true communities of learning.

Notice that the framework takes into account both teacher and student responsibilities.

In September of 2009, Marzano released the Marzano Observational Protocol as a tool to help evaluate and provide feedback for educators. The Marzano Observational Protocol is specifically designed to provide feedback based on The Art of Science Teaching framework. The Marzano model is composed of four domains. The domains outlined in Marzano’s (2007) *The Art and Science of Teaching* are as follows:

1. Domain 1- Classroom strategies and behaviors
2. Domain 2- Planning and preparing
3. Domain 3- Reflecting on teaching
4. Domain 4- Collegiality and professionalism
Each domain has subcategories. The domains contain 60 specific elements. There are 41 elements in Domain 1, Domain 2 has eight elements, while Domain 3 is composed of five elements and Domain 4 is made up of six elements.

It is necessary to define some specific terms and concepts in order to better conceptualize the model that Marzano has developed. Marzano (2007) uses segments to categorize lessons in the following manner.

- **Routines:** These are items or tasks that would be expected to been seen during every lesson. Routines would include such tasks as reviewing rules and procedures, reviewing and communicating learning goals, reviewing student progress or celebrating success.

- **Content specific lesson segments:** This portion addresses the actual teaching of content in the classroom and is divided into three separate categories;
  
  a. **Interacting with new knowledge:** If the segment involves new knowledge expected activities would include; previewing activities, information presented in small chunks, students processing chunks in small groups, students summarizing and taking notes after content has been introduced, students reflecting on their own learning.

  b. **Practicing and deepening knowledge:** If the segment involves practicing and deepening of knowledge expected activities would include brief review of content, activities involving similarities and differences, identifying errors in thinking, practice problems and homework used as an extension of these activities.
c. Generating and testing hypothesis: If the segment involves generating and testing hypothesis expected activities would include brief review of content, students working individually or in groups on long term tasks, teacher acting as facilitator and resource provider.

- Segments that must be enacted on the spot: These are items or tasks that would be expected to be seen on an as needed basis. On the spot segments would include such tasks as acknowledgement of rules or procedures being followed or not being followed, engagement activities when students lose focus, behaviors that forge positive relationships with students, and attention to behaviors that communicate high expectations to all students.

The goal of the Marzano Observational Protocol is to develop expert teachers through identification of critical behaviors and appropriate feedback that if acted upon could lead to improved performance. This could be linked closely to deliberate practice.

A critical aspect of deliberate practice which can lead to the development of expertise is the collection and use of feedback. Because feedback is a critical component for improvement and development of experts Ericsson (2006) specified that efficient learning is impossible without adequate feedback even if individuals are highly motivated. Quality feedback is fueled by specific, timely and multiple data points. According to Marzano, (2010a) frequent feedback is beneficial but it must accurately reflect the complexity of the teaching and learning process. Because the Marzano Observational Protocol is designed to deliver feedback for teachers in multiple formats such as, walkthroughs, complete observations, instructional rounds, self-ratings and self-observation it offers researchers a
challenge in terms of its scope. For this research project, the focus will be on the use of self-ratings, self-observation (through video analysis) and reflective peer observations.

Table 3 shows an example of the framework. The Art and Science of Teaching framework is based on ten design questions, this example is taken from design question two in which there are eight elements identified that help students effectively interact with new knowledge. The first element of design question two is “identifying critical information.” Marzano gives both teacher evidence examples and student evidence examples of how to gauge teacher effectiveness in this element. The tables contain the design question, followed by the element identification, next the rating scale is listed with types of teacher and student evidence listed below. An example of the rating school and guidelines for issuing ratings is shown in Table 4. This format is repeated for each of the elements identified in the Marzano Observational Protocol.
Table 3

*Sample from the Marzano Observational Protocol from Design Question Two*  (Marzano, et al., 2011).

**Design Question #2: What will I do to help students effectively interact with new knowledge?**

<table>
<thead>
<tr>
<th>1. Identifying Critical Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovating</td>
</tr>
<tr>
<td><strong>Teacher Evidence</strong></td>
</tr>
<tr>
<td>□ Teacher begins the lesson by explaining why upcoming content is important</td>
</tr>
<tr>
<td>□ Teacher tells students to get ready for some important information</td>
</tr>
<tr>
<td>□ Teacher cues the importance of upcoming information in some indirect fashion</td>
</tr>
<tr>
<td>• Tone of voice</td>
</tr>
<tr>
<td>• Body position</td>
</tr>
<tr>
<td>• Level of excitement</td>
</tr>
<tr>
<td><strong>Student Evidence</strong></td>
</tr>
<tr>
<td>□ When asked, students can describe the level of importance of the information addressed in class</td>
</tr>
<tr>
<td>□ When asked, students can explain why the content is important to pay attention to</td>
</tr>
<tr>
<td>□ Students visibly adjust their level of engagement</td>
</tr>
</tbody>
</table>

**Notes:**
A sample of the rating scale that is used can be found in Table 4. Each of the elements in domain one is ranked based on the following scale. Domains two, three and four are evaluated on the same scale with a variation of descriptors that are appropriate for each domain (Marzano, et al., 2011).

Table 4

*Marzano Observational Protocol Rating Scale*

<table>
<thead>
<tr>
<th>Innovating (4)</th>
<th>Applying (3)</th>
<th>Developing (2)</th>
<th>Beginning (1)</th>
<th>Not Using (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapts and creates new strategies for unique student needs and situations.</td>
<td>Engages students in the strategy and monitors the extent to which it produces the desired outcomes.</td>
<td>Engages students in the strategy with no significant errors or omissions.</td>
<td>Uses strategy incorrectly or with parts missing.</td>
<td>Strategy was called for but not exhibited.</td>
</tr>
</tbody>
</table>

**Comparison of the Danielson and Marzano Frameworks**

This section has detailed the impact of comprehensive teaching frameworks. Danielson and McGreal (2000) believe “Education is built around conception of practice based on current and emerging research findings; as those suggest new approaches, pedagogical practices must also move forward” (p. 3). Frameworks provide a way to combine emerging research and new approaches with current best practices in a format that can beneficial to educators. Danielson and McGreal (2000) state that:

The past 40 years of research has produced an ever-evolving understanding of good teaching. If we plunge into denial (“pretending not to know what we know”) or use other excuses (“been there done that” or “what goes around, comes around”) we will miss out on knowledge accumulated through extensive reviews of best evidence and
experience. Any district that is serious about developing new, effective evaluation and professional development programs must start with a rich set of teaching standards that reflect what we know. (p. 15)

Both Danielson (1996) and Marzano (2007) agree that comprehensive frameworks offer a common language that allow educators to communicate clearly with and also allows teachers to more easily identify and share good teaching practices.

Both the Danielson and Marzano models are similar in their attempts to develop a comprehensive rubric based teaching framework that defines teacher expectations in a multitude of areas. Each utilizes a standards based approach that divides teaching into behaviors and strategies. However, educational research has evolved since the inception of the Danielson model which has yielded greater insight on teachers and teaching strategies. The Marzano Observational Protocol represents a new standard based teaching framework that is based on current research. While the Marzano Observational Protocol is similar to the Danielson model in that it is both research and standards based, the Marzano Observational Protocol puts an emphasis on classroom instruction and behaviors while making distinctions between new knowledge, deepening knowledge, and hypothesis generating. A comparison chart of the specific elements that are delineated in domains two and three of Danielson teaching framework and domain one of the Marzano teaching frameworks is contained in Table 5. These are the elements that can be observed during classroom teaching.
Table 5

*Comparison of Elements of Charlotte Danielson Framework for Teaching Domains 2 and 3 and the Marzano Observational Protocol Domain 1*

<table>
<thead>
<tr>
<th>Charlotte Danielson Framework for Teaching Domains 2 and 3</th>
<th>Marzano Observational Protocol Domain 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher interaction with students</td>
<td>Providing clear learning goals and scales to measure those goals.</td>
</tr>
<tr>
<td>Student interactions with other students</td>
<td>Tracking Student Progress</td>
</tr>
<tr>
<td>Importance of content</td>
<td>Celebrating Student Success</td>
</tr>
<tr>
<td>Expectations for learning and achievement</td>
<td>Establishing classroom routines</td>
</tr>
<tr>
<td>Student pride in work</td>
<td>Organizing the physical layout</td>
</tr>
<tr>
<td>Management of instructional groupings</td>
<td>Identifying critical information</td>
</tr>
<tr>
<td>Management of transitions</td>
<td>Organizing students to interact with new knowledge</td>
</tr>
<tr>
<td>Management of materials and supplies</td>
<td>Previewing content</td>
</tr>
<tr>
<td>Performance of noninstructional duties</td>
<td>Chunking content into digestible bites</td>
</tr>
<tr>
<td>Supervision of volunteers and paraprofessionals</td>
<td>Group processing of new information</td>
</tr>
<tr>
<td>Expectations</td>
<td>Elaborating on new information</td>
</tr>
<tr>
<td>Monitoring student behavior</td>
<td>Recording and representing knowledge</td>
</tr>
<tr>
<td>Response to student misbehavior</td>
<td>Reflecting on learning</td>
</tr>
<tr>
<td>Safety and accessibility</td>
<td>Reviewing content</td>
</tr>
<tr>
<td>Arrangement of furniture and use of physical resources</td>
<td>Organizing students to practice and deepen knowledge</td>
</tr>
<tr>
<td>Expectations for learning</td>
<td>Using homework</td>
</tr>
<tr>
<td>Directions and procedures</td>
<td>Examining similarities and differences</td>
</tr>
<tr>
<td>Explanation of content</td>
<td>Examining errors in reasoning</td>
</tr>
<tr>
<td>Use of oral and written language</td>
<td>Practicing skills, strategies and processes</td>
</tr>
<tr>
<td>Quality of questions</td>
<td>Revising knowledge</td>
</tr>
<tr>
<td>Discussion techniques</td>
<td>Organizing students for cognitively complex tasks</td>
</tr>
</tbody>
</table>

(continued)
The Danielson model contains 76 elements to Marzano’s 60 elements but it is worth noting that there is a definite emphasis on classroom strategies and behaviors in the Marzano model with 41 of the 60 elements or 68% being dedicated to this domain. Marzano addresses both instruction and student behavior or classroom management in domain one whereas
Danielson addresses behavior and classroom management in domain two and instruction in domain three. Danielson dedicates 33 elements or 43% of her framework to these areas. The greater emphasis on the classroom strategies and behaviors allows the Marzano Observational Protocol to be specific in its identification of strategies that have direct impact on student learning.

It is worth noting the domain and element breakdown of each of the frameworks. Table 6 denotes the domain and element breakdown of the models.

Table 6

<table>
<thead>
<tr>
<th>Danielson and Marzano Comprehensive Teaching Framework Comparison.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain 1</strong></td>
</tr>
<tr>
<td><strong>Domain 2</strong></td>
</tr>
<tr>
<td><strong>Domain 3</strong></td>
</tr>
<tr>
<td><strong>Domain 4</strong></td>
</tr>
<tr>
<td><strong>Total Elements</strong></td>
</tr>
<tr>
<td><strong>Percentage of elements focused on classroom strategies (instruction and classroom environment)</strong></td>
</tr>
</tbody>
</table>

This concludes the review and highlights of Charlotte Danielson Framework for Teaching the Marzano Observational Protocol. Each model uses a standards based approach which creates a common language, identifies specific strategies and teaching behaviors, and
defines expectations for teachers and evaluators. Neither framework uses a checklist approach, both models are researched based, both models attempt to honor the complexities of teaching, and each framework consists of four domains. However, the Marzano Observational Protocol places a greater emphasis on the classroom strategies and behaviors.

Review and Summary of Themes about Selected Comprehensive Teaching Frameworks

The key concepts that were highlighted in this section were:

1. There should be a focus placed on teacher growth by both teachers and administrators throughout the careers of teachers. Through the use of comprehensive teaching frameworks (Danielson & McGreal, 2008; Marzano 2007; Marzano et al., 2011) and actionable feedback (Weisberg, et al., 2009) teachers can be given the opportunity and tools to improve their teaching;

2. The Charlotte Danielson Framework for Teaching and the Marzano Observational Protocol were introduced and highlighted as models of comprehensive teaching frameworks. Both Danielson, (1996; 2007) and Marzano, et. al., (2011) shared the following commonalities:

   a. Each model uses a standards based approach which creates a common language, identifies specific strategies and teaching behaviors, and defines expectations for teachers and evaluators. Neither framework uses a checklist approach.

   b. Both models are researched based.

   c. Both models attempt to honor the complexities of teaching.
d. Each framework consists of four domains. However, the Marzano Observational Protocol places a greater emphasis on the classroom strategies and behaviors.

These key points help to conceptualize how comprehensive teaching frameworks fit in with teacher supervision and evaluation. The use of a comprehensive teaching framework that creates a common language, identifies specific strategies and behaviors and defines expectations can help to create the framework to support feedback that is necessary to help promote teacher growth. The two frameworks that were reviewed were the Charlotte Danielson Framework for Teaching and the Marzano Observational Protocol. These will be the two comprehensive frameworks that will be used in this research project. The next section will review the literature on video analysis.

**Review of Research and Theory about Video Analysis**

**Section Introduction**

The following section on video analysis summarizes the literature that was reviewed with particular emphasis given to Sherin (2009) and van Es (2010). The key concepts that will be highlighted in this section will be;

1. The benefits of using video to gain perspective and to raise teacher awareness (Beck, et al., 2002; Knight, 2011; Sherin and van Es, 2009).
2. The role of video in providing teacher feedback (Borko, et al., 2008; Brophy, 2004).
3. The impact of using video on teacher reflection (Beck, et al., 2002; van Es, 2010).
This section will also contain literature from other researchers and authors that will be summarized to help support these main ideas along with other related concepts and theories. The literature on video analysis was reviewed to help identify a potential tool that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. An issue that needs to be addressed is the development of a systematic process that delivers feedback to teachers yet is still sustainable for both teachers and administrators or observers. The use of video to generate feedback may be part of a solution to create a sustainable and actionable feedback system.

**Gaining Perspective and Raising Awareness**

The practice of analyzing video of one’s own teaching can help teachers to gain a new perspective on their teaching that can lead to more reflective practices. According to Knight (2011), “Educators, like everyone else, can be blissfully unaware of their own need to improve. As a result, when teachers watch video recordings of themselves, they are often shocked to see that the way they teach or coach bears little resemblance to how they imagine it to be” (p. 21). The use of videos can help teachers better understand how their students perceive them and to better locate areas that are in need of further development and deliberate practice.

Using videos in other professions has often been acceptable practice that has proven useful. The use of videos in sports to analyze both self and opponent tendencies in order to create improvement or action plans (sports teams use the term scouting reports), is prevalent from the professional ranks all the way down to the high school level. Recent studies using video-supported reflection by Beck, King, and Marshall (2002) and Sherin and Van Es (2009) have found that teachers benefit when they watch and evaluate video recorded
lessons of their own or another’s teaching. The time has come where school districts should incorporate the analysis of video of one’s own teaching into the professional development of teachers.

Recently, the term “video club” has emerged in the literature to reveal the use of video to analyze and study teaching (Sherin, 2000; Sherin & van Es, 2009). In a two year-long studies, one involving four middle school math teachers and another involving 12 preservice high school math and science teachers Sherin and van Es (2005) analyzed student thinking, teacher roles and classroom discourse. Teachers were involved in open ended questions during discussions and were asked to complete a narrative essay analyzing video from their own classroom. The researchers found the focus shifted from pedagogy to student thinking and that the analysis became more of a formative assessment that was based on evidence. Thus, the use of video to analyze teachers’ own teaching helped teachers to have discussions and make judgments that were grounded in fact instead of perception.

Sherin and van Es (2009) also conducted a study using four middle school math teachers in one group and seven fourth and fifth grade teachers in another. Math lessons were recorded, watched and discussed at monthly meetings. The researchers observed changes in conversations and examined the influence of the video club in regards to thinking outside of the meetings. Sherin and van Es found and increased focus on interpreting student mathematical thinking, teachers analyzed a wider range of factors than just pedagogy and their knowledge based reasoning was developed. Again, this study shows teachers were able to have more meaningful discussion because of the use of video.

Video clubs make use of videos by having groups of teachers focus on a particular aspect or facet of teaching. They then analyze videos of themselves teaching while focusing
on the particular aspect. This is very similar to the concept of deliberate practice that was discussed in the previous section. The groups share their insights with each other with the goal of improving themselves and their colleagues. According to Sherin (2000) “Video clubs give teachers opportunities to watch and discuss videotapes of their teaching and to develop new techniques for viewing and explaining classroom interactions” (p. 36). Teachers whose professional development was focused on videos of themselves teaching reported that it had greater potential to support their learning and promote changes in their instructional practices (Borko, Jacobs, Eiteljorg, & Pittman, 2008). This should have been expected because it fits in with what the literature (which will be reviewed in a later section) has shown about adult learning theory in regards to self-direction, reflection and relevancy (Knowles, 1980).

**Impact on Feedback and Reflection**

The recent research on the use of video to help facilitate reflective discussion has found that the use of video has the following benefits.

- Videos potentially can be an influential means for change and improvement because it makes teachers’ own classrooms accessible in ways that have not been previously possible (LeFevre, 2004).
- Videos are becoming popular in teacher professional development because of its unique ability to capture the complexity of classroom activity for later analysis (Brophy, 2004; Borko, et al., 2008).
- Videos can be reviewed repeatedly and from different perspectives which allows for reflection on classroom practices (Sherin, 2004).
- Videos can support learning focused on reflection, analysis and analysis of alternative strategies (Brophy, 2004).
The use of video allows new access to a wealth of information. The ability to review individual teaching free of an outside bias is invaluable. Typically, teachers only had the ability to review the notes of an outside observer that may or may not have been accurate. Video removes any perceived bias and also gives the teacher a better perspective of how students view their classrooms. The use of video also allows for the possibility of multiple viewings to gain a better understanding of what is happening in the classroom and also allows for the possibility to change focus and view multiple different areas or aspects. Sherin (2000) found video to be a successful medium for reflecting on practice because teachers had more time to respond and teachers could focus on certain aspects of teaching without worrying about others. However, it should be noted that to be effective, video must be viewed with a clear purpose (Brophy, 2004). This relates to the research on deliberate practice that states that practice must be focused and on very specific skills.

The real advantage of using video comes in its potential to impact teacher self-reflection. The use of video allows teachers to gain a new perspective on their teaching and to be able to analyze the lesson piece by piece. Teachers use video to interpret what occurred during the lesson and to focus on what took place in the classroom. According to Sherin (2000) using video to analyze teaching can impact teacher’s perspectives toward teaching and learning by allowing teachers the ability to examine their instruction.

Studies by Beck, King, and Marshall (2002), and Sherin and van Es (2005) that focused on using video-supported reflection, revealed that teachers benefit when they review and evaluate videotaped lessons of either their own or another's teaching. According to Beck et al., (2002) "The participants' ability to identify, interpret, and analyze evidence of exemplary teaching" was enhanced (p. 345). Sewall (2009) also found that teachers
produced responses that significantly outperformed those who did not incorporate video observation in the reflective process. It was also found that video based reflection helps teachers be more specific about their comments and shifts their focus from classroom management to instruction while concentrating less on themselves and more on their teaching (Rosaen, Lundeberg, Cooper, Fritzen, & Terpstra, 2008). Rosaen et al., go on to state that because video analysis allows the teacher to be able to see the complete picture (at least more complete than written notes from an observer) they are able to dissect and learn from the experience instead of merely surviving the experience.

In a recent study by van Es (2010) the use of video analysis on teacher practice has shown to that teachers developed their practice the following key areas;

1. teachers made student thinking visible by inviting students to ask a question or to contribute to class
2. teachers provided extra time for students to think when questions or problems were posed
3. teachers also “elicited multiple methods or solutions for the group to analyze and discuss” (p. 58)
4. teachers asked students to explain their thinking and then probed their explanations, finally teachers were learning while teaching.

This reveals that teachers were able to practice very specific parts of teaching (developing practice). They were also able to reflect, monitor and modify their practices (metacognition) (van Es, 2010). It appears that the use of self-reflection through video promoted both expertise development and deliberate practice
The use of video analysis in combination with a comprehensive teaching framework may be a way to allow teachers to generate feedback that can impact their teaching. The video offers an opportunity to become self-aware and to reflect on current and past practice with the potential to apply that learning to future teaching.

**Review and Summary of Themes of Video Analysis**

The key concepts that were highlighted in this section were;

1. Analyzing video of one’s own teacher can identify areas that are need of improvement that teachers were unaware of (Knight, 2011).

2. Analyzing video of one’s own teaching allows teachers to obtain immediate feedback from multiple perspectives of their teaching and it allows teacher to analyze the information at a later time. (Borko, et al., 2008; Brophy, 2004).

3. Studies by Beck, et al., (2002) and van Es, (2010) found that teachers improved their reflection when they evaluate their own teaching on video. The ability to repeatedly review videos (Sherin, 2004) and to capture the complexity of classroom activity (Borko, et al., 2008; Brophy, 2004) allows teachers to produce more specific comments about their teaching (Rosaen, et al., 2008).

These key points help to conceptualize how these pieces fit in with teacher supervision and evaluation. This section on video analysis helped to identify a potential tool that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. First the benefits of using video to analyze one’s own teaching include gaining a new perspective of one’s own teaching and increased self-awareness. Second, video allows teachers to view themselves teaching multiple times in
order to gain valuable information that can be used as actionable feedback. Finally, the ability for teacher’s to analyze their own teaching piece by piece has potential to impact teacher self-reflection. The next section will review the literature on peer observation.

**Review of Research and Theory about Peer Observation**

**Section Introduction**

The following section on peer observation summarizes the literature that was reviewed with particular emphasis given to Cosh (1999). The key concepts that will be highlighted in this section will be;

1. The benefits of peer observations (Cwilka, 2004; Ricahards & Farrell, 2005).

2. Peer observations impact on teaching practices and introduction of new practices into teaching (Buchanan & Khamis, 1999; Mujis & Reynolds, 2005).

3. Explanation and rationale for selecting the reflective peer observation model for this study (Cosh, 1999).

This section will also contain literature, from other researchers and authors, that will be summarized to help support these main ideas along with other related concepts and theories. The literature on peer observation was reviewed to help identify a potential tool that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. An issue that needs to be addressed is the development of a systematic process that delivers feedback to teachers yet is still sustainable for both teachers and administrators or observers. The use of reflective peer observations to generate feedback may be part of a solution to create a sustainable and actionable feedback system.
Benefits and Impact of Peer Observations on Teaching Practices

According to Richards and Farrell (2005) peer observations can help to stimulate professional development and teacher growth because of its ability to create awareness of teaching strategies and to facilitate opportunities for discussion among peers. Richards and Farrell also state that peer observation can be considered a form of professional development that can address the needs in the areas of instruction and classroom management. Using peer observations as professional development was confirmed by Cwikla (2004) who reported that teachers believe that classroom observations would help them learn about effective teaching methods. Buchanan and Khamis (1999) found that the implementation of peer observations gave teachers the opportunity to question and refine their teaching. It is through peer observations that teachers can get ideas from other teachers to help them improve on their weaknesses (Mujis and Reynolds, 2005).

Researchers have also shown that peer observations provide a mechanism for change by providing fresh insights into teaching practices that have contributed to learning of both the observed and the observer (Pressick-Kilborn & te Riele, 2008). Farrel (1998) believes that teachers can leave routine behaviors and begin to act in a deliberate and intentional manner with the help of reflective teaching. Peer observations can be a stimulus for reflective teaching.

The literature revealed that there are several models of peer observation that have been recommended with some focusing on the benefits of the teacher being observed and others on the gains of the observing teacher. It should be noted that in most cases, the studies were based on institutes of higher education. Here is a limited summary of some various peer observation models as noted by Cosh (1999).
• Colleagues agree on set criteria and observe each other. The observation is followed by a discussion and constructive feedback: “The aim of the observation is to help improve the skills of the observed, therefore quality feedback is essential” (S. Brown, Staff, Educational Development Association, et al., 1993, p. 82).

• Two teachers work together in what is called pair mentoring. Two teachers observe each other and discuss areas of interest and future strategies (Whisker, 1996).

• Lessons are video recorded. Teachers watch lessons and discuss areas of interest and specific aspects to improve upon (van Es, 2010).

According to Cosh (1999) all of the above mentioned models require the ability for others to correctly identify issues and give constructive feedback in a meaningful and effective fashion. The aforementioned models are also built on the assumption that people improve best through the comments and feedback of others; this may not be the case (Garmston, 2000; Pink 2009a). (The effectiveness of feedback will be discussed in depth in the next section.)

Brown, et al., (1993) explain that peer observations can assist teachers to, “critically reflect upon their teaching through planned observation discussion and analysis. This may result in staff trying out new ideas, reaffirming what is being done, or modifying existing techniques in order to help students better learn” (p. 77). The models of peer observation that have been mentioned require external feedback which can create challenges for both the peer observer and teacher (these will be detailed in the next section). A possible solution to this is to eliminate the need for external feedback.
Reflective Peer Observations

Implementing a peer observation model that is driven by self-generated feedback has the potential to more sustainable and practical for school districts. Cosh (1999) proposes two possible alternative models;

- Option A: An area of interest or potential problem is selected such as questioning or transitioning. Teachers observe the class and complete an observation sheet that is focused on ideas generated and possible further action for their own development. The observations are followed by a workshop or discussion where teachers share their experiences.

- Option B: Each teacher observes an area particularly relevant to his/her own concerns and area of teaching. A simple feedback sheet is used to record what they had learned from the observation. The feedback sheet is used to clarify ideas and to “make suggestions for future staff development in areas of workshops, seminars or demonstrations” (p. 26).

The model used for this research project was similar to “Option A,” the reflective approach which focuses more on the self-development of the observer (Cosh, 1998). In this model, the observer is attempting to reflect on their own teaching instead of making judgments upon others. Teachers using the reflection model are aware of the different approaches and can reassess their own teaching. This approach is more about creating teaching awareness of the practices of both themselves and their peers.

Cosh (1999) states that in the reflective model, the emphasis is on what the observer has learned. Reflective peer observations are not performed to judge others but to “encourage self-reflection and self-awareness about our own teaching. The focus is on the
teacher’s own development, rather than the presumed ability to develop the teaching of one’s peers or colleagues” (p. 25). According to Cosh (1998) reflective peer observation “is active self-development: an intra-personal process, which encourages awareness, experiment, and the sharing and dissemination of good practice” (p. 173).

Cosh (1999) states that in other models, the emphasis is on being observed and teachers are told about their teaching rather than participating in a process of “active self-development through reflection and self-awareness” (p. 23). Cosh (1999) also believes that it is common for teachers to become defensive and resist suggestions from peers that are basically subjective. Giving teachers constructive feedback is difficult and can result in offending the teacher. This leads to teachers giving only positive comments which make the process pointless. It is also likely that teachers being observed will implement a model lesson during observation periods which gives an unrealistic view of teaching.

Cosh’s (1999) goal was to have observation not become a way to judge the teaching of others, but to encourage self-awareness, self-reflection and open-mindedness to other approaches and styles. The focus is on the teacher’s own development, rather than on developing peers. Table 7 summarizes the benefits of reflective peer observations

**Table 7**

*Benefits of Reflective Peer Observations*

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<th>Benefits of Reflective Peer Observations</th>
<th>Eliminates need for external feedback</th>
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<td></td>
<td>Avoids judgment of peers</td>
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<td>Potentially exposes teachers to new ideas</td>
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<td>Offers potential for differentiated professional focus and development</td>
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<td>Gives teachers opportunity to question and refine their teaching</td>
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<td></td>
<td>Encourages self-reflection and self-awareness about own teaching</td>
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One of the criticisms of this approach can be that marginal teachers lack the skills of being self-critical or the awareness to actually improve. Cosh (1999) argues that “If, as sometimes happens, a teacher is totally lacking in self-awareness and self-criticism, there would seem to be little chance of any approach helping them become a good teacher” (p. 25). While this approach may not work for all teachers, it would seem that research has shown that it is a viable option for a majority of staff.

**Review and Summary of Themes of Peer Observation**

The key concepts that were highlighted in this section were:

1. Peer observations can be considered professional development because it allows teachers to be exposed to ideas in the areas of instruction and classroom management (Cwilka, 2004; Richards & Farrell, 2005).

2. Peer observations give teachers the opportunity to question and refine their teaching (Buchanan & Khamis 1999). Teachers can get ideas from other teachers to help them improve (Mujis & Reynolds, 2005).

3. Cosh’s (1999) reflective peer observation model was chosen for this study because it eliminated the need for external feedback which is predicated on others correctly identifying an issue and being able to give constructive feedback in a meaningful fashion. In this model, the observer is observing in order to reflect on their own teaching.

These key points help to conceptualize how these pieces fit in with teacher supervision and evaluation. This section on peer observation helped to identify a potential tool that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. First the benefits of peer observation include increased
awareness of teaching strategies and the potential to implement strategies and behaviors of other teachers. Second, peer observations have the potential to create actionable feedback and to stimulate reflection. Finally, the implementation of reflective peer observations encourages differentiated professional development through self-awareness and self-reflection. The next section will review the literature on reflection and metacognition.

**Review of Research and Theory about Reflection and Metacognition**

**Section Introduction**

The following section on reflection and metacognition summarizes the literature that was reviewed with particular emphasis given to Costa and Garmston (2002), Mezirow (1990) and Garmston (2000). The key concepts that will be highlighted in this section will be;

1. The importance developing reflective skills and internal feedback. (Bartlett, 1990; Ellison and Hayes (2003); Loughran, 2002).


3. Adult learning with regards to the following;

   1. Developing reflection and metacognition skills. (Livingston, 2003; Loughran, 2002; Mezirow, 1990)

   2. Self-direction and motivation (Knight, 2011; Knowles, 1980; Pink, 2009a; 2009b)

   4. The concept of praxis (Knight, 2011; Mezirow, 1990).
The literature on reflection and metacognition was reviewed to help identify a process that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. An issue that needs to be addressed is the development of a systematic process that delivers feedback to teachers yet is still sustainable for both teachers and administrators or observers. The implementation of a process that incorporates structured reflection that allows teachers to process feedback may be part of a solution to create a sustainable and actionable feedback system.

**Importance of Reflection**

A large part of the success for supervision and evaluation process in regards to developing teachers, if not the majority of the process, lies in the ability of developing an internal compass in teachers. This internal compass should help to guide the teacher in decision making when the evaluator is not present. The goal of supervision and evaluation should be to develop teachers who are self-correcting. This is very similar to the Ericsson’s (2006) view on expertise which calls for experts to be able to monitor, control, evaluate and modify their own performance.

When discussing her comprehensive teaching framework, Danielson (2007) stated that, “The most powerful use of the framework—and one that should accompany any other use—is for reflection and self-assessment. Research has clearly demonstrated that reflection on practice improves teaching” (p. 168). The key is to have teachers evaluate their daily experiences with a teaching framework and to internalize the framework while using reflection to help improve teaching.

The term “reflection” is used frequently within the education profession. However, it should be noted that reflection and reflective practice are often not clearly understood.
According to Hammersley-Fletcher and Orsmond (2005) “Reflection is something more than simply thinking, and, just as we need to be taught how to think effectively, so we need to learn how to be effective reflective practitioners” (p. 222). While most supervision and evaluation systems talk about the importance of reflection, they seldom give a detailed framework or process to follow in order to truly be reflective.

Bartlett (1990) believes that becoming a reflective teacher is about moving from the basic “how to” questions revolving around instructional practices to questions that ask “what” and “why.”

Asking “what and why” questions give us a certain power over our teaching. We could claim that the degree of autonomy and responsibility we have in our work as teachers is determined by the level of control we can exercise over our actions. In reflecting on the above kind of questions, we begin to exercise control and open up the possibility of transforming our everyday classroom life. (p. 267)

Bartlett is describing the first steps of moving from reflection to action. The first step in this process is about gaining a clear perspective and awareness of the current situation.

Killion and Todnem (1991) defined reflection as a “rich source of continued personal and professional growth” (p. 13). The authors also go on to say that practitioners must approach reflection with both rigor and a formal purpose in order to reveal the wisdom that is in our practice and to help guide future action. According to Marzano, et al., (2011) the supervision and evaluation process should help guide teachers’ future actions. This is validated by Ellison and Hayes (2003) who believe that through reflection it is possible to create learning experiences that impact future actions.
Central to an effective supervision and evaluation process is the development of reflection skills. Teachers need to reflect in order to make appropriate changes to their teaching. Helen (2002) has shown just how vital reflection is to making changes in the classroom.

Any changes that they [pre-service teachers] make to their teaching and/or have about their thoughts regarding what ought to be taught and why it ought to be taught will probably be the result of self-reflection. If preservice teachers do not experience tasks that necessitate them to reflect on the act of teaching and the world in which they teach, they will likely make few changes as teachers. (p. 11)

This quote underscores the importance of reflection and the impact it can have on teachers’ daily performance in the classroom. Loughran (2002) states, “to teach about reflection requires contextual anchors to make learning episodes meaningful. Simply being encouraged to reflect is likely to be as meaningful as a lecture on cooperative group work (p. 33). This sentiment can also be found elsewhere in the literature. Knight (2011) believes reflection should be anchored in contextual experiences while Danielson (1996) and Marzano (2007) state that reflection should be accompanied by a comprehensive teaching framework in order for it to be the most beneficial for practitioners.

In a recent Educational Leadership article, Danielson (2011) emphasizes that effective teacher evaluations that lead to teacher growth will come from a processes that engages teachers in self-assessment and reflection. This statement is reaffirmed by Boud (1993), who writes that it is not the experience itself but “the intellectual growth that follows the process of reflecting on experience. Effective learning does not follow from a positive experience but from effective reflection” (p. 162). By creating reflective experiences and
opportunities supervision and evaluation have the opportunity to create learning through reflection.

Danielson’s contention in regards to self-assessment and reflection agrees with Loughran’s work that focused on self-direction. Loughran (1996) believes that reflection helps to develop the dispositions, skills, and attitudes necessary for teachers’ professional self-directed development. While the need for feedback has been previously mentioned, Garmston (2000) states that “external feedback reduces the capacity for accurate self-reflection” (p. 64). Garmston, also goes on to state that “staff developers must eliminate systems and processes that foster dependency on external sources of correction and judgment in order to increase each person’s capacity to be self-reflective” (p. 64). This is significant because while there is a need to develop a method of feedback, it is more important to develop the ability of teachers to self-assess and self-correct. While external feedback helps to cure the symptom of the problem, internal feedback gets at the root cause and can have a much more powerful effect on future actions (Garmston, 2000; Knight, 2011). The concepts of reflection and feedback are directly linked to the important concept of metacognition.

One way to ensure that reflection is taking place and self-feedback is being generated is to have evidence of the reflective processing that is taking place. This can be done through reflective writing. Reflective writing usually involves reviewing something, analyzing the event or idea and thinking carefully about what the event means for the learner and their ongoing practice (Hampton, n.d.). Bolton (2009) states, because reflection is a way of learning from one’s own experience it can inform practice, widen perspectives and challenge assumptions. Bolton also goes on to state that reflective writing can help practitioners to better understand or discuss the following (this is a partial listing):
• “what you know but do not know you know”
• “what you think, feel, believe, value, understand about your role and boundaries”
• “how your actions match up with what you believe”
• “what you can change in your context; how to work with what you cannot”
• “how to value the perspective of others, however different they are to you” p.752

Reflective writing within a structured format will be used during the study to help participants better understand the concepts of metacognition, self-managing, self-monitoring, and self-modifying.

**Metacognition and Self-Managing, Self-Monitoring and Self-Modifying**

Loughran, (2002) states that across various professions such as science, nursing, medicine, law, and teaching the need for individuals to develop their understanding about how they conduct work and become skilled practitioners has been important in informing the profession about aspects of practice. This allows the knowledge base of the profession to develop and be refined to help practitioners to become effective and informed. While building a knowledge base is important, how an individual accesses the knowledge base is also important because it impacts how the knowledge is assimilated and utilized by the practitioner. Much of the success of adopting certain practices and methods can be traced to metacognition or the ability of the individual to self-manage, self-monitor and self-modify. There was consensus in the literature in terms of the importance of creating professionals who can be self-monitoring, self-regulating and self-evaluating (Ellison & Hayes, 2003; Flavell, 1977; Wilson & Clark, 2004). Ellison and Hayes (2003) go so far to say that genuine and lasting improvement comes only when individuals are self-managing, self-monitoring, and self-modifying. Hattie (2009) adds that deliberate practice is “focused on improving
particular aspects of the target performance, to better understand how to monitor, self-regulate, and evaluate their performance, and reduce errors” (p. 30). This is an important piece of the conceptual framework because it links the concepts of deliberate practice and self-monitoring self-regulating and self-modifying.

Mezirow (1990) believes that metacognition is important because it helps to inform and regulate cognitive routines and strategies. The difference between cognitive strategies and metacognitive strategies is defined here by Livingston (2003), “Cognitive strategies are used to help an individual achieve a particular goal (e.g., understanding a text) while metacognitive strategies are used to ensure that the goal has been reached (e.g., quizzing oneself to evaluate one’s understanding of that text)” (p. 3). Supporting teachers so they have a better understanding of metacognition and to help them understand how to question and analyze their current practice on a daily basis could be a key to effective supervision and evaluation.

According to Flavell (1977), metacognition includes the following components: The ability to set and meet cognitive goals; the ability to define and analyze a task; the ability to monitor and adjust one’s own learning; knowledge of a variety of problem-solving strategies; and self-knowledge about one’s learning process. The definition of metacognition that will be used for this study is the “awareness individuals have of their own thinking; their evaluation of that thinking; and their regulation of that thinking (Wilson, 2001). This definition is further explained by Wilson and Clarke (2004) in the following three part explanation they developed namely awareness: knowledge, and regulation.

- Metacognitive awareness relates to individuals’ awareness of where they are in the learning process, of their content specific knowledge, and their knowledge
about their personal learning or problem solving strategies. It also includes knowledge of what needs to be done, what has been done, and what might be done in problem solving situations.

- Metacognitive regulation occurs when individuals make use of their metacognitive skills to direct their knowledge and thinking. Metacognitive regulation also draws upon individuals’ knowledge (about self and strategies, including how and why they use particular strategies) and uses of skills (such as planning, self-correcting, setting goals) to optimize the use of their own cognitive resources.

- Metacognitive evaluation refers to judgments made regarding the thinking process, capacities, and limitations as these are employed in a particular situation. Livingston (2003) states that while most people engage in metacognition practices, some are more metacognitive than others. Those with better metacognitive abilities tend to be more successful in their cognitive tasks. Individuals can become better at regulating (metacognition) of their cognitive tasks. This is important to note and fits in with both the growth mindset (Dweck, 2008) and the theory of deliberate practice (Ericsson, 2006; Ericsson & et al., 1993). If individuals are supported in developing their metacognitive skills it could potentially have a significant impact on their ability to direct their knowledge and thinking. Metacognition is important because of its close relationship to reflection and adult learning theory.

**Adult Learning**

The concept of adult learning will be addressed because at its core, the goal of supervision and evaluation should be improvement of teachers. Teacher improvement and
growth is contingent upon learning more about teaching and being able to successful apply that learning. Thud adult learning plays a crucial role within teacher growth.

Adult learning needs to result from their desire to improve their ability to face the challenges they encounter throughout life. Malcolm Knowles (1980) developed an adult learning theory known as "andragogy." Andragogy is defined as the art and science of helping adults learn and is based on the notion that adults are self-directed learners who are unique based upon their personal experiences. This idea is also articulated in the recent work of Knight (2011) that if someone else does the thinking or chooses our goals individuals seldom change. According to Knowles (1980), research has shown that adult learning needs to be self-driven in order to be successful and new learning needs to be relevant and fit within adults’ current context. This idea is also confirmed in the literature that found adults learn best when they are actively involved in a learning activity where past and present experiences are used in problem solving (Cochran-Smith & Lyte, 2001; Halslam & Seremet, 2001).

In his theory of andragogy Knowles (1984) describes four key premises:

- Adults need to be involved in the planning and evaluation of their instruction
- Experience (including mistakes) provides the basis for learning activities
- Adults are most interested in learning about subjects that have immediate relevance to their job or personal life
- Adult learning is problem-centered rather than content-oriented.

Adults need to be involved in the ongoing planning and evaluation of their learning. Self-direction and relevancy play a large role in adult engagement.
Mezirow believes that a central piece of the adult learning is the process of reflecting on prior learning to determine if what we have learned is justified in the current context (1990). Recent research suggests that the benefits of reflective practice include freeing teachers from impulsive routine behavior and allowing them to act in an intentional and deliberate manner (Reagan, et al., 2000). Mezirow (1990) states that reflection enables individuals to correct distortions in our beliefs and errors in problem solving but there is a difficulty in becoming reflective because of our own bias, “Because we are all trapped by our own meaning perspectives, we can never really make interpretations of our experience free of bias. Consequently, our greatest assurance of objectivity comes from exposing an expressed idea to rational and reflective discourse” (p. 10). This underscores the need to analyze and completely develop thoughts and ideas created during the reflective process in order to fully understand and articulate the needs and focus of development for teachers. He goes on to reveal that, “By far the most significant learning experiences in adulthood involve critical self-reflection—reassessing the way we have posed problems, and reassessing our own orientation to perceiving, knowing, believing, feeling, and acting” (p. 13). This fits in precisely with the underpinnings of deliberate practice and expertise development.

Mezirow (1990) also believes that reflective skills can be developed in people similar to the growth mindset theory. It is not that some adults are incapable of becoming critically reflective or making reflective judgments it’s only that they have not learned how to think in these ways. Ellison and Hayes (2003) propose that improving teacher practice lies in the development of creating self-monitoring practitioners through the use of reflection. This sentiment can also be found in Marzano, et al., (2011) which states the missing link in
creating reflective, self-monitoring teachers has been a development of the skills that foster this complex change process.

This also leads into current research that has discovered that people are motivated by mastery, autonomy, and purpose. People are motivated by doing complex work at a high level. They are also motivated if they have the freedom to choose goals and how to achieve them and finally they are motivated by participating in work that makes a difference (Pink, 2009b). Teachers who are self-directed learners have the opportunity to choose their goals in work that makes a difference. Pink also states that “Management works but self-direction works better; when people are self-directed engagement goes up” (Pink, 2009a). In order to improve engagement, teachers should have the opportunity to participate in a supervision and evaluation model that allows for more self-direction and self-reflection. However, it should be noted that Knight (2010) states total choice without structure could lead to chaos. This is where the need for a common language and comprehensive teaching framework help to create a scaffold and structure for development and goal setting (Marzano, et al., 2011).

A majority of the current supervision and evaluation systems are built on external feedback and limit opportunities for teachers to engage in true reflective practice. Just as all effective teachers and coaches strive to have their students or players become increasingly independent; according to Ellison and Hayes (2003) so too should supervision and evaluation systems strive to create an increasingly more independent yet more reflective teacher.

In essence, for this study, the work on metacognition and reflection culminates in creating self-directed learners. Here Costa and Garmston (2002), who developed Cognitive Coaching, offer a succinct definition of self-directed learners. Self-directed learners must routinely:
• self-manage: the ability to articulate goals and intentions with a clear vision while including specificity for indicators of success

• self-monitor: the ability to gather data on an ongoing process comparing the current conditions to the intended plan through observing and attentive listening

• self-modify: the ability to construct meaning by evaluating actions and decisions against goals and commit to make changes based on new learning

More specifically Elisson and Hayes (2003), who are associates of Costa and Garmston, give the following description of the three phases. Table 8 is a summary from Elisson and Hayes (2003).
Table 8

*Key Components of Self-Managing, Self-Monitoring, and Self-Modifying*

<table>
<thead>
<tr>
<th>Self-managing</th>
<th>Self-monitoring</th>
<th>Self-modifying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articulate goals and intentions</td>
<td>Draw on self-knowledge as a checkpoint for what is working and not working</td>
<td>Evaluate actions and decisions against intentions and goals</td>
</tr>
<tr>
<td>Clear vision</td>
<td>Requires attention to one’s metacognition and external cues</td>
<td>Requires reflection and introspection</td>
</tr>
<tr>
<td>Strategic planning for goal achievement</td>
<td>Constantly comparing current conditions to intended plan</td>
<td>A disposition toward growth serves the self-modifying person</td>
</tr>
<tr>
<td>Specificity about indicators of success</td>
<td>Requires attention to alternatives and choice making in the moment</td>
<td>Construct meaning from experience and commitment to make changes based on new learning</td>
</tr>
<tr>
<td>Deliberate in considering prior knowledge and experiences</td>
<td>Focus through attentive listening and observing</td>
<td>Self-modification draws from the self-monitoring process to focus forward and deliberate on future actions</td>
</tr>
<tr>
<td>Don’t leap to action, gather information and consider options and relevant data</td>
<td>Constant vigilance of oneself and one’s environment</td>
<td></td>
</tr>
</tbody>
</table>

Each of the columns contain specific elements that define self-managing, self-monitoring, and self-modifying. As was previously mentioned, the definition that was used for metacognition was built around the findings of Wilson and Clarke (2004) who created a three part definition based on awareness, knowledge, and regulation. The findings of Wilson and
Clarke (2004) correlate with those of Costa and Garmston (2002). Awareness is similar to self-managing, knowledge is similar to self-monitoring and regulation is similar to self-modification. Again, the research points towards creating an evaluation and supervision system that is built upon teachers who are self-directed and self-managing.

Praxis

In reviewing the literature, there was a goal of trying to find a concept that united the concepts of deliberate practice, metacognition, and reflection along with relevancy in the classroom for teachers. The literature revealed that there is indeed such a concept, praxis, a term that originated in ancient Greece. Aristotle held that there were three basic activities of man: theoria, poiesis and praxis. Corresponding to these kinds of activities were three types of knowledge: theoretical, to which the end goal was truth; poietical, to which the end goal was production; and practical, to which the end goal was action. By definition, “praxis is the process by which a theory, lesson, or skill is enacted, practiced, embodied, or realized” ("Praxis," 2010).

In his book *Unmistakable Impact*, Knight (2011) defines praxis in the following manner; “Praxis describes the act of applying new ideas to our own lives” (p. 43) and also, “When we learn, reflect and act we are engaged in praxis” (p. 44). The ideas of reflecting and applying new ideas capture the essence self-directed learning. In previous work Bernstein (1983) wrote that “Praxis requires choice, deliberation, and decisions about what is to be done in concrete situations” (p. 160). Again, this idea fits into the conceptual framework of adult learning (choice), reflection (deliberation) and the relevancy that is important to adult learners (concrete situations). Mezirow (1990) also connects praxis with reflection,
“Praxis can pertain to action resulting from critical reflection regarding premises that distort the way we interpret experience” (p. 355).

Later, Bernstein also makes a point about relevance and engagement. If praxis is truly practiced there is no gap between knowing and doing because people are making plans to use the idea immediately in the classroom. Praxis is predicated on relevance which increases engagement (Bernstein, 1983). Again, here praxis ties in with the claims of Pink (2009a) that was previously discussed in regards to engagement.

Finally, Knight (2011) succinctly uses praxis to summarize Garmston’s definition of self-directed learner that was previously mentioned. The concept of praxis is predicated on adapting learning to real-life applications for teachers. Praxis is enabled when teachers have an opportunity to think about how they teach, learn, and plan a new approach (self-manage), reconsider their teaching practices (self-monitor) and modify (if necessary) (self-modify) the new approach until it can work in their classroom.

The issue now is to find a sustainable process that connects the dots between self-reflection, meta-cognition, deliberate practice, and expertise development. Glickman (2002) believes that educators must have formats, structures and plans for reflecting, changing, and assessing their practice. Ellison and Hayes (2003) suggest that genuine and lasting improvement comes only when individuals are self-managing, self-monitoring, and self-modifying. Defining a systematic process that unites these recommendations may hold the key to teacher development.
Review and Summary of Themes of Metacognition and Reflection

The key concepts that were highlighted in this section were:

1. Research has clearly demonstrated that reflection improves teaching (Danielson, 2007). However, reflection is a skill that needs to be taught (Hammersley-Fletcher & Orsmond, 2005). The use of internal feedback during reflection can help to get at the root cause of issues (Garmston, 2000; Knight, 2011).

2. Much of the success at adopting practices can be traced to improved metacognition or the ability of individuals to self-manage, self-monitor and self-modify (Ellison and Hayes, 2003).

3. Adult learning needs to be self-driven, relevant and (Knowles, 1980) adults need opportunities to reflect (Mezirow, 1990). Also;
   
   A. Reflection skills can be developed in adults (Mezirow, 1990),
   
   B. People who are self-directed, allowed to choose their own goals, and participate in purposeful work are more motivated (Pink, 2009b). However, total choice without structure can lead to chaos (Knight, 2010).

4. A key to becoming an expert is the ability to be a self-directed learner. According to Costa and Garmston (2002), self-directed learners must routinely be able to:
   
   A. self-manage: the ability to articulate goals and intentions with a clear vision while including specificity for indicators of success
B. self-monitor: the ability to gather data on an ongoing process comparing the current conditions to the intended plan through observing and attentive listening.

C. self-modify: the ability to construct meaning by evaluating actions and decisions against goals and commit to make changes based on new learning.

5. The concept of praxis is important because teachers must be able to incorporate new ideas into their teaching. Knight (2011) defines praxis in the following manner; “Praxis describes the act of applying new ideas to our own lives” (p. 43).

These key points help to conceptualize how the pieces fit in with teacher supervision and evaluation. This section on reflection and metacognition was reviewed to help identify a process that could be used in conjunction with a comprehensive teaching framework to create actionable feedback for teachers. First reflection on teaching practices can improve teaching. Also, the skill of reflection itself can be taught and improved through practice. Second, with improved metacognition, teachers can improve their ability to monitor and adjust their own teaching on a continual basis. Next, adult learners have increased motivation if they are empowered to choose their own goals and areas of focus but structure is needed for the process to be most effective. Finally, being able to incorporate new ideas into practice (praxis) is an important part of improving teaching performance.

**Introduction of Theoretical Model to Foster Teacher Growth**

The above review of literature represents the current knowledge base related to the research questions addressed by the study. This final chapter section proposes a theoretical model for teacher growth that was based on the literature.
The literature revealed a need for a process that allows teachers to develop teacher expertise. Theoretically, teachers can improve by engaging in a process that allows them to develop specific components and behaviors of their teaching. Potentially teaching can be improved through the use of self-generated feedback that is created via analysis of video of one’s own teaching and through reflective peer observations. The feedback is used to improve teaching by using a structured reflective process that is grounded in a comprehensive teaching framework and based on the belief that expertise can be attained through deliberate practice. The teacher can use the feedback generated and insight garnered during the structured reflective process, along with a comprehensive teaching framework, to identify areas of improvement and to practice and develop in these areas thus enhancing their overall teaching performance and ultimately student performance. If this process is repeated on a continual basis then it is possible to develop teacher expertise.
In this proposed model, disposition + tools + process + practice = expertise development. Teacher growth is initiated by accepting that individuals can improve and by targeting specific skills to improve. These specific skills are improved via a continual process that utilizes structured reflection to analyze video of one’s own teaching and their peers teaching in conjunction with a comprehensive teaching framework to evaluate progress. In this model, the comprehensive teaching framework (either The Marzano Observational Protocol or Danielson’s Professional Framework for Teaching) was considered a tool to combine with both video analysis of a teacher’s own teaching and
reflective peer observation. These three specific tools helped to create feedback which led to the development of metacognitive and reflective skills. These skills in turn helped teachers to self-reflect, self-monitor, and self-modify their teaching practices. Through the self-modification process, teachers were able to apply new ideas to real life situations (praxis) and to work on very specific skills (deliberate practice) with the goal of improving a specific aspect of their teaching (developing expertise).

**Theoretical Teacher Growth Process**

To begin the process, teachers are provided information and discuss the concepts of expertise development with particular emphasis on deliberate practice. Teachers also are provided information and discuss information on the concept of growth mindset. Understanding this foundation and making teachers aware that improvement or becoming an expert is a matter of choice is extremely important to the process. Developing this disposition in teachers is critical to the success of the process. Finally, teachers are provided information and discuss metacognition and the concepts of self-managing, self-monitoring, and self-managing. Giving teachers a common language and defining expectations for reflection has the potential to develop teacher capacity for reflection and to become better able to self-monitor their progress. Giving structure to the reflection has the potential to make the process more meaningful and effective.

Then, using a comprehensive teaching framework, a teacher completes a self-evaluation that targets very specific behaviors or skills to improve. For example if the Danielson Framework for Teaching was used, behaviors that could be targeted could be quality of questions or directions and procedures. If the Marzano Observational Protocol was used, examples may be previewing content or chunking content into digestible bites. A self-
evaluation is used so that teachers have complete control over the process. Allowing for the process to be based on self-evaluation takes into account the theory presented on adult learning theory that proposes engagement is increased if adults are self-directed. It also ensures that the process will be relevant and differentiated for all participants.

Once specific behaviors or skills are identified for improvement, all of the efforts over the course of the process are focused on developing the identified areas of improvement. This ensures that the skills being developed are based on a specific need which is a component of deliberate practice. (If teachers realize after watching their first video that they were incorrect in their self-assessment, then they should select other specific behaviors or skills to target and improve.)

Teachers are then asked to record themselves teaching and to focus on evaluating the behaviors or skills that they identified for improvement. Using video allows teachers to increase their awareness of their performance, identify areas of strength and areas to improve. Using video also allows teachers to get immediate feedback on their teaching from a different perspective. Also, no one else is required to watch the video. This removes much of the fear and anxiety associated with video recording one’s own teaching. Because the goal is to create teachers who are self-monitoring, supervision and evaluation processes need to allow teachers opportunities to practice self-monitoring. Teachers are then asked to reflect on their experience by answering the following questions in writing. The rationale for how these questions were selected can be found in chapter three.

1. Briefly give some background on the lesson: (Subject, topic, objective)

2. What was the particular behavior, strategy or skill you focused on?
3. As a result of viewing the video of your own teaching, what have you learned about teaching?

4. How will your findings impact your teaching?

5. What new questions about your teaching have emerged?

Having the teachers respond in writing is a way to help ensure the integrity of the process but more so, requesting that the reflection process is in written format, enhances the process for teachers. Writing forces people to organize their thoughts and to process at a deeper level increasing the potential that it will impact daily practice.

After completing the first video recording and reflection, teachers are then asked to complete a peer observation and to focus on evaluating the behaviors or skills that they identified for improvement. The focus of the visit is not on improving the teacher being observed but on how the observer can improve their own teaching. This eliminates the need for external feedback which can be problematic. The benefits of peer observation include increased awareness of teaching strategies and the potential to implement strategies and behaviors of other teachers with the potential to create actionable feedback and to stimulate reflection. Also the implementation of reflective peer observations encourages differentiated professional development through self-awareness and self-reflection. After the reflective peer observation, teachers are then asked to reflect on their experience by answering the following questions in writing.

1. Briefly give some background on the lesson: (Subject, topic, objective)

2. What was the particular behavior, strategy or skill you focused on?

3. As a result of the classroom visit, what have you learned about your own teaching?
4. How will your findings impact your teaching?

5. What new questions about your teaching have emerged?

Teachers are asked to repeat the process twice. At the end of the process, teachers will have created a self-evaluation, and have three reflections based on their own teaching and three reflections based on the teaching of their peers. The process is repeated because deliberate practice dictates that repetition is necessary and that opportunities for learning and skill acquisition need to be provided. The reflections also ensure that performance is monitored and that teachers practice self-monitoring. The process culminates in a final reflection that asks the following questions:

1. As you reflect on this experience, what were two or three of your essential learnings? (What big ideas or insights did you discover?)

2. How has this experience changed your current teaching?

3. Compare your initial self-evaluation with your final evaluation using the Marzano Observational Protocol or Danielson Framework for Teaching. Identify two to three areas that you can focus on to improve your teaching (specific subsets of design questions). How did the comprehensive teaching framework contribute to your thinking about this specific practice?

4. As you plan future lessons, what insights have you developed that might be applied to new lessons?

5. What are your current goals:

   **Short term** (in the next nine weeks)

   **Medium term** (within the next year)

   **Long term** (within the next three years)
The final reflection is used to cement learning and to have teachers create goals that are based off of their experience. The goal setting allows for teachers to set benchmarks that will help them to continue to self-monitor their progress.

**Forecast Chapter Three**

Throughout this chapter, key components that lead to teacher growth were described. These components are the foundation for the study design that is described in Chapter Three and the analysis that is presented in Chapter Four. This summarization will serve as a foundation for comparison of study findings as related to the relevant literature that will be described in Chapter Five.
CHAPTER THREE: RESEARCH DESIGN

Research Rationale

Research Purpose

The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. The research question guiding this study was: How does a comprehensive teaching framework, combined with self-video analysis and reflective peer observations impact metacognition and the development of teacher expertise? Related questions that guided this study were:

1. To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of one’s own teaching?
2. To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification of one’s own teaching?
3. To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring and self-modification of one’s own teaching?
4. Were the perceptions of teacher’s performance impacted by using a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?
5. Did using a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways?
This research sought to explore a potential supervision and evaluation process that incorporated current research about expertise development, comprehensive teaching frameworks, video analysis, peer observations, metacognition, and adult learning theory.

**Research Approach**

The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by video self-analysis, reflective peer observations and a comprehensive teaching framework. The following figure will help to outline the theoretical model used for the study.
In this model, the comprehensive teaching framework (either The Marzano Observational Protocol or Danielson’s Professional Framework for Teaching) was considered a tool to be used in conjunction with both video analysis of a teacher’s own teaching and reflective peer observation. These three specific tools were intended to create feedback which led to the development of metacognitive and reflective skills. These skills in turn were intended to help teachers to self-reflect, self-monitor and self-modify their teaching practices. Through the self-modification process, teachers have the potential to apply new ideas to real life situations (praxis) and to work on very specific skills (deliberate practice) with the goal of improving a specific aspect of their teaching (developing expertise).
The research purpose guided this researcher to utilize a qualitative research approach. Case study methods provide in depth learning about a limited group of people. Thus, it was determined that conducting a case study on the teachers participating in a workshop that provided professional development in the areas of a comprehensive teaching framework (the Marzano Observational Protocol or the Danielson’s Framework for Teaching), self-reflection through the analysis of the recording of one’s own teaching and reflective peer observation provided the best research benefits for the context of the situation.

A case study is the exploration of a “bounded system” over time through multiple sources of information such as direct observations, participant observations, interviews archival review, documents, and physical artifacts (Creswell, 1998; Yin, 1989). This study was bounded due to the fixed number of participants, fixed amount of time and the individual’s experience being studied as they participated in the teacher workshop.

The comparative case study was chosen due to its ability to compare similar situations that were significantly different in a particular area. According to Kaarbo and Beasley (1999), in comparative case study, the researcher, “compares two or more cases in order to draw implications about a single theory or single hypothesis” (p. 377). This study used a comparative case study with a qualitative approach and an embedded single-case design (Yin, 2006).

According to Yin (2006), in comparative case studies, researchers compare one or more units exposed to the event or intervention of interest to one or more unexposed units. Therefore, comparative case studies are only feasible when some units are exposed to a treatment and others are not (or when their levels of exposure differ notably). In this case study, one of the variables was manipulated; the comprehensive teaching framework that was
implemented, Danielson’s Framework for Teaching was implemented the Danielson Cohort while the Marzano Observational Protocol was implemented in the Marzano Cohort.

Professional development centered on the frameworks along with the following other topics; video analysis, reflective peer observation, metacognition, reflection, self-managing, self-monitoring, self-modification, and the sharing of strategies and research articles.

The comparative case study methodology allowed the researcher to complete a study that was designed to investigate a novel theory. In this case, the novel theory was a supervision and evaluation process that is systematic, sustainable, and fosters teacher growth by honoring adult learning needs and creating teachers who can become self-monitoring. This study revolved around the implementation of two distinct comprehensive teaching frameworks; Charlotte Danielson’s Framework for Teaching and Robert Marzano’s Observational Protocol.

The comparative case study approach also allowed for the researcher to create specific units of analysis. Yin (2006) states that “subunits of analysis can often add significant opportunities for extensive analysis, enhancing the insights into the single case” (p. 46). Yin also warns that too much attention should not be given to the subunits (or smaller components of the larger model) because the larger holistic aspects of the case could be ignored. Thus a greater emphasis of the analysis of this project revolved around the data on metacognition, deliberate practice and differences between the Marzano Observational Protocol and Danielson’s Framework. It is hypothesized, that a more specific framework such as the Marzano Observational Protocol, is more aligned with the theories of deliberate practice and development of expertise and thus would be more likely to create the dispositions and actions that lead to the development of expert teachers.
Due to the uniqueness of the project and the fact that the Marzano Observational Protocol was less than two years old during the data collection, the project called for the creation of a very specific study design. Because the Marzano Observational Protocol is new, it offered the challenge of having very few current practitioners who were familiar with or currently implement it. This necessitated the need to build a research design that allowed for the actual teaching and implementation of the protocol. The researcher created a multi-session workshop for teacher volunteers focusing on professional development utilizing a comprehensive teaching framework, video analysis of participants own teaching and reflective peer observation with the goal of improving teacher expertise. The assignments from the workshop were the source of the document analysis for the study.

When assessing the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework, it would become difficult to determine if the impact on deliberate practice and expertise came from the protocol or one of the other variables such as video analysis, metacognition, reflection, self-reflection, self-monitoring, self-modification, and the sharing of strategies and research articles. Thus, the researcher determined that if an identical workshop was offered except for the substitution of Danielson’s Framework for Teaching for the Marzano Observational Protocol, it would provide the researcher an opportunity to isolate the impact of the Danielson Framework for Teaching and the Marzano Observational Protocol on deliberate practice and the development of teacher expertise. The Charlotte Danielson Framework for Teaching model was selected due to its popularity in current school districts. The model was
also selected because while it is researched based, it is more general in its approach than the Marzano Observational Protocol.

**Case Study**

After studying several types of data collection for this particular study, a qualitative data collection methodology was determined to be the best approach. Qualitative methods are known to enhance understanding by providing rich explanations. When the researcher wants to tell a story about who, what, when, where, why and how, then focusing on a particular instance, example, or case provides a great opportunity for qualitative research. According to Yin (2003), qualitative methods such as case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real life context. This researcher sought to better understand how a comprehensive teaching framework combined with self-video analysis and reflective peer observations impacted metacognition and the development of teacher expertise. The researcher was also interested in operationalizing the model if it proves to be effective.

Therefore, case study methodology was chosen for the following reasons. First, According to Yin (2003) case study research is best utilized when a research seeks to answer *how* or *why* research questions. Secondly, Kaarbo and Beasley (1999) stated that case study is especially useful when investigating novel hypotheses or theories. Finally, Goldman (1988) stated that case study could “lead to an improved understanding of the problems and possibilities of operationalization” (p. 227). Thus the case study methodology was best suited for this study.
Research Plan

Site and Sample

Selection and Description of Site

This qualitative comparative case study focused on the participants from a professional development workshop that lasted over a six week period. The research site was a large, urban, K-12 public school district located in South-Eastern Wisconsin. According to internal district documents, the district employs 800 teachers who work in 17 different schools across the district. Approximately 9,000 students attend the district. At the time of the study, demographics of the district were as follows: White 65.7%; Hispanic 18%; African-American 9.3%; Asian 3.1% and American Indian 1.4%. Additionally, 51.9% of families were listed as economically disadvantaged.

The site was selected because the district’s Director of Human Resources asked the researcher if he had an interest in developing a professional development experience that would enhance the district’s current supervision and evaluation process. The Director of Human Resources wanted to identify a more meaningful and effective experience for teachers in the district in regards to the supervision and evaluation process. The district also agreed to allow release time to teachers during the school day to participate in the research project. The researcher agreed to providing professional development in the areas of a comprehensive teaching framework, video analysis of own teachers own teaching, reflective peer observation and metacognition. This project was conducted as partial fulfillment of the doctoral program at Cardinal Stritch University.
**Communication with Site**

The Director of Human Resources sent out a district wide e-mail on three separate occasions that invited any interested staff to participate in a professional development opportunity entitled, “Developing Teacher Expertise Workshop.” The e-mail contained detailed information of the requirements and meeting times for the workshops. The researcher was listed as the contact person for additional information. Potential participants contacted the researcher for more information and to register for the workshop.

**Selection and Description of Sample**

Every teacher in the district had an opportunity to participate in a professional development opportunity entitled, “Developing Teacher Expertise Workshop.” The researcher is a current Principal in the district. To avoid bias within the study, no teachers were allowed to participate if they were currently under the supervision of the researcher.

District staff were informed about the following meeting times and requirements.

- Three separate group meetings lasting up to 3 hours
- Participants will meet on three separate occasions from 12:00-3:00 pm
- The location of the workshop will be determined after the participants are finalized
- **Group A**  Thursdays -April 14, May 5, May 19
- **Group B**  Tuesdays-April 19, May 10, May 24

Participants also agreed to complete the following:

- Read and utilize 1 book (either Marzano’s “The Art and Science of Teaching” or Danielson’s “Enhancing Professional Practice” this will be determined based on the group that you are with)
• Complete three self-video reflections
• Complete three reflective peer observation reflections of other teachers
• Complete two self-evaluations using the assigned framework
• Complete one final reflection and plan for action
• Participation in interviews and/or a focus group
• Evaluation of the process of reflection for improvement for the district (this was used for the district and was not part of the study.)

Interested teachers contacted the researcher via email as instructed. A total of 19 teachers first responded to the invitation. A total of 15 teachers committed to being part of the study. Due to scheduling conflicts within the participants’ teaching duties, six teachers were placed into “Cohort A” (Danielson Cohort) and nine teachers were placed into “Cohort B” (Marzano Cohort). Participants were given release time from their teaching duties during the three meeting dates. All participants completed a brief preliminary interview before the start of the workshop.

The group meetings took place in a conference meeting room at the district office. The meeting times were as follows

• Danielson Cohort: Thursdays -April 14, May 5, May 19 from 12:00pm-3:00pm
• Marzano Cohort: Tuesdays-April 19, May 10, May 24 from 12:00pm-3:00pm

During the workshop, participants were asked to read one book (either Marzano’s, “The Art and Science of Teaching” or Danielson’s, “Enhancing Professional Practice” which was based on their group placement.) The books were used to help build background knowledge of the frameworks and were referenced in discussions during the workshop. Participants were also asked to video record themselves teaching on three separate occasions for 15-20 minutes
and to complete three separate reflective peer observations for approximately 20 minutes as well. Participants were asked to complete a written reflection consisting of five questions based on their analysis of each video and reflective peer observation. At the beginning of the workshop, participants were asked to complete a self-evaluation using their designated framework to locate areas of need. At the end of the workshop participants were asked to reevaluate themselves using their designated framework to reassess their perceptions of their own teaching. Participants were also asked to complete a final reflection on their experience that consisted of five questions that include goal setting. Finally, participants were asked to complete an interview that was approximately 45 minutes in length in June and a confirming focus group in January of 2012.

This qualitative comparative case study focused on the experiences of 15 teachers who participated in a workshop entitled, “Developing Teacher Expertise Workshop”. The teachers were divided into two groups, the Danielson Cohort consisting of six teachers and the Marzano Cohort consisting of nine teachers (the discrepancy in size was due to scheduling conflicts of the workshop). All 15 of the participants were female. Documents were collected and appropriate measures were used to ensure confidentiality of documents received from participants.
Table 9 details the pseudonym of each participant, their cohort name (the Danielson Cohort used the Danielson Framework for Teaching as their comprehensive teaching framework while the Marzano Cohort used the Marzano Observational Protocol), the level at which they teach (Elm. is an abbreviation for elementary school, Int. is an abbreviation for intermediate school, and Sec. is an abbreviation for secondary school.), their years of experience, the primary subject they teach, and their highest level of education attained.

Table 9

<table>
<thead>
<tr>
<th>Name</th>
<th>Cohort</th>
<th>Level</th>
<th>Exp.</th>
<th>Subject</th>
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<td>Nancy</td>
<td>Danielson</td>
<td>Int</td>
<td>9</td>
<td>Social Studies</td>
<td>MS</td>
</tr>
<tr>
<td>Karen</td>
<td>Danielson</td>
<td>Int</td>
<td>5</td>
<td>Lang Arts</td>
<td>BS</td>
</tr>
<tr>
<td>Lisa</td>
<td>Danielson</td>
<td>Int</td>
<td>12</td>
<td>Spec. Ed</td>
<td>BS</td>
</tr>
<tr>
<td>Tiffany</td>
<td>Danielson</td>
<td>Sec</td>
<td>3</td>
<td>Spec. Ed.</td>
<td>BA</td>
</tr>
<tr>
<td>Trinity</td>
<td>Danielson</td>
<td>Sec</td>
<td>22</td>
<td>Spec. Ed Lead</td>
<td>BA</td>
</tr>
<tr>
<td>Julie</td>
<td>Marzano</td>
<td>Elm</td>
<td>20</td>
<td>Elementary</td>
<td>MS</td>
</tr>
<tr>
<td>Eva</td>
<td>Marzano</td>
<td>Elm</td>
<td>3</td>
<td>Music</td>
<td>BA</td>
</tr>
<tr>
<td>Rachel</td>
<td>Marzano</td>
<td>Elm</td>
<td>3.5</td>
<td>Elementary</td>
<td>BA</td>
</tr>
<tr>
<td>Christy</td>
<td>Marzano</td>
<td>Int</td>
<td>12</td>
<td>Spec. Ed Lead</td>
<td>BS</td>
</tr>
<tr>
<td>Paige</td>
<td>Marzano</td>
<td>Int</td>
<td>21</td>
<td>Social Studies</td>
<td>MA</td>
</tr>
<tr>
<td>Vanessa</td>
<td>Marzano</td>
<td>Int</td>
<td>11</td>
<td>Spec. Ed</td>
<td>MA</td>
</tr>
<tr>
<td>Sandra</td>
<td>Marzano</td>
<td>Int</td>
<td>12</td>
<td>Spec. Ed</td>
<td>MS</td>
</tr>
<tr>
<td>Molly</td>
<td>Marzano</td>
<td>Sec</td>
<td>13</td>
<td>English</td>
<td>MA</td>
</tr>
<tr>
<td>Patricia</td>
<td>Marzano</td>
<td>Sec</td>
<td>10</td>
<td>Social Studies</td>
<td>MA</td>
</tr>
</tbody>
</table>

Table 10 details cohort characteristics in regards to the amount of years taught. The Danielson Cohort consisted of six total members whose average years of experience were 11.5 years. The Marzano Cohort consisted of nine total members whose average years of experience were 11.7 years.
Table 10

*Cohort Characteristics Years of Experience*

<table>
<thead>
<tr>
<th>Years Exp</th>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>6—10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>11—15</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>16—20</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21+</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total Members</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Average Years Experience</td>
<td>11.5</td>
<td>11.7</td>
</tr>
</tbody>
</table>

In the Table 11, cohort characteristics are delineated in terms of level taught and subject taught. Please note that the discrepancy in the amount of participants in each group was due to scheduling conflicts. The Danielson Cohort met on Thursdays and The Marzano Cohort met on Tuesdays. A total of two participants specifically asked to be placed in the group that met on Tuesdays while five participants specifically asked to be placed in the group that met on Thursdays strictly due to scheduling purposes. Neither cohort was aware of what comprehensive teaching framework they would be using until they started.
Table 11

*Group Characteristics Level and Subject Taught*

<table>
<thead>
<tr>
<th>Level</th>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades K-5</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Social St</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Spec Ed</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lead Teach</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Elm</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Elm / Music</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Request: Due to Conflict (Time)</th>
<th>2</th>
<th>5</th>
</tr>
</thead>
</table>

| Master Degrees | 2 | 6 |

The Marzano Cohort had two more elementary and one more intermediate teachers than the Danielson Cohort. Also note that the groups were divided as evenly as possible in terms of subject taught with the exception being that the Marzano Cohort had two non-music elementary teachers while the Danielson Cohort had zero. The other discrepancy of note is that Group the Danielson Cohort contained two teachers who had earned their masters degrees while the Marzano Cohort had six teachers who had earned their master degrees. When comparing the groups, the average years of experience are almost identical with the Danielson Cohort averaging 11.5 years of experience and the Marzano Cohort averaging 11.7 years. The level at which teachers taught and subject level is also is as evenly divided as possible. The requests for the cohort that met on Thursdays (the Marzano Cohort) accounted
for the total number of members discrepancy (six in group the Danielson Cohort to nine in the Marzano Cohort) and the amount of masters degrees earned (two in the Danielson Cohort compared to six in the Marzano Cohort)

**Communication with Sample**

Communication with the participants took place in person, via email, via phone and via written communications. Initial communication with staff was done via email. Once agreement and signed permission to participate in the research study were reached, communication took place via email and phone. The actual interviews and observations took place in person at a school site.

Follow up review of the transcribed interviews were requested to assist in assuring internal validity of data. Participants had an opportunity to member check their data and interpretations of that data to determine if the results were plausible. This was done in accordance with Merriam (1988) who describes member checking as taking data and interpretations back to the people from whom they were derived and asking them if the results are plausible (p. 169).

**Data Collection**

For the purposes of this qualitative study, data were collected during the months of April, May, June of 2011 and January of 2012. These dates were used to facilitate the workshop dates, conduct interviews and collect data for document analysis. Days selected were based on the availability of the participants and researcher. Within the research methodology of comparative case study, this study employed the techniques of interviews, focus groups and document analysis to generate data relevant to the research questions/hypotheses.
The Danielson Cohort consisted of teachers who participated in a workshop that learned about the Charlotte Danielson Framework for Teaching. This was combined with professional development on video analysis of their own teaching as well as reflective peer observations of other teachers. Teachers also shared best practice strategies and current educational research articles during the three group meetings.

The Marzano Cohort consisted of teachers who participated in a workshop that learned about the about the Art and Science of Teaching framework as well as the Marzano Observational. This was combined with professional development on video analysis of their own teaching as well as reflective peer observations of other teachers. Teachers also shared best practice strategies and current educational research articles during the three group meetings.

The following table shows the order of events or processes that each participant was asked to complete. Participants were asked to complete one preliminary interview, a self-evaluation, identify a specific area of focus, three self-video analysis, three peer observation analysis, a final reflection, an interview and finally a focus group.

Table 12

Order of Events or Processes

<table>
<thead>
<tr>
<th></th>
<th>1. Initial interview</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. A self-evaluation using comprehensive framework</td>
</tr>
<tr>
<td></td>
<td>3. Identify two or three specific areas of focus</td>
</tr>
<tr>
<td></td>
<td>4. Video recording of own teaching</td>
</tr>
<tr>
<td></td>
<td>5. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>6. Observe a peer teaching</td>
</tr>
<tr>
<td></td>
<td>7. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>8. Video recording of own teaching</td>
</tr>
<tr>
<td></td>
<td>9. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>10. Observe a peer teaching</td>
</tr>
<tr>
<td></td>
<td>11. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>12. Video recording of own teaching</td>
</tr>
<tr>
<td></td>
<td>13. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>14. Observe a peer teaching</td>
</tr>
<tr>
<td></td>
<td>15. Written reflection of previous step</td>
</tr>
<tr>
<td></td>
<td>16. Final written reflection of overall experience and future goals</td>
</tr>
<tr>
<td></td>
<td>17. Post interview</td>
</tr>
<tr>
<td></td>
<td>18. Focus group</td>
</tr>
</tbody>
</table>
The following table provides the data collection method, description, and purpose of collecting the data. While both cohorts had identical expectations, the Danielson Cohort utilized the Danielson Framework for Teaching and the Marzano Cohort utilized the Marzano Observational Protocol.
Table 13

*Description of the Data Collection Events*

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Interview</td>
<td>Individuals participated in separate interviews.</td>
<td>Established baseline data</td>
</tr>
<tr>
<td>Self-Evaluation Using A Comprehensive Teaching Framework</td>
<td>Teachers used a comprehensive framework to complete an extensive self-evaluation.</td>
<td>Created baseline data. This data was used to compare changes after implementation of a comprehensive framework</td>
</tr>
<tr>
<td>Reflection on Video Analysis of Own Teaching (3 Separate Observations were completed)</td>
<td>Teachers recorded and analyzed video of their own teaching. Teachers answered the Self Video Evaluation Reflection Questions.</td>
<td>To gather data on teachers’ ability to recognize expertise (or lack of) in the classroom and use of language in describing the experience.</td>
</tr>
<tr>
<td>Reflection on a Classroom Observation of Another Teacher Using a Comprehensive Framework (3 Separate Observations were completed)</td>
<td>Teachers used a comprehensive framework to complete reflective peer observations and answer reflection questions</td>
<td>To gather data on teachers’ ability to recognize expertise (or lack of) in the classroom and use of language in describing the experience.</td>
</tr>
<tr>
<td>Self-Evaluation Using A Comprehensive Teaching Framework</td>
<td>Teachers answered questions based on the overall experience and set short, medium and long range goals.</td>
<td>To evaluate changes from the initial evaluation using and to provide data for final reflection.</td>
</tr>
<tr>
<td>Final Reflection</td>
<td></td>
<td>To evaluate impact on teaching based on the overall experience and impact on reflective and goal setting practices.</td>
</tr>
<tr>
<td>Interviews</td>
<td>Individuals participated in separate interviews.</td>
<td>To clarify and substantiate findings related to video analysis, self-managing behaviors, growth disposition, deliberate practice, comprehensive teaching framework, teacher expertise and supervision and evaluation.</td>
</tr>
<tr>
<td>Focus Group</td>
<td>Teachers participated in a focus group to confirm findings and to answer questions related to the study.</td>
<td>To clarify and substantiate findings related to video analysis, self-managing behaviors, growth disposition, deliberate practice, comprehensive teaching framework, teacher expertise and supervision and evaluation.</td>
</tr>
</tbody>
</table>
Detailed Description of Data Collection Methods

Participants were asked to participate in a preliminary interview, submit answers to reflections on self-video analysis (three times) and reflections on peer observations (three times) along with a final reflection. Participants were also asked to participate in an interview and confirming focus group.

Preliminary Interview Questions

Individuals participated in a preliminary interview to help establish a baseline of data in regards to metacognition, reflection and comprehensive teaching practices. The following questions were used in a ten minute phone interview conducted before the workshop started. Each question was directed in a general area that was related to this study.

Table 14

Preliminary Interview Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Area of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your opinion, do you think the current teacher supervision process improves your teaching? Why or why not?</td>
<td>Teacher Evaluation</td>
</tr>
<tr>
<td>How do you try to improve your teaching?</td>
<td>Metacognition</td>
</tr>
<tr>
<td>What tools or process do you use to be reflective about your practice? Explain</td>
<td>Tools / Metacognition</td>
</tr>
<tr>
<td>Have you ever analyzed video of your own teaching? Why or why not?</td>
<td>Video Analysis</td>
</tr>
<tr>
<td>How do you try to improve your teaching?</td>
<td>Expertise Development:</td>
</tr>
<tr>
<td>What are you hoping to gain from being involved in the workshop?</td>
<td>Miscellaneous:</td>
</tr>
</tbody>
</table>

These brief ten minute interviews were used to either help reveal or confirm some potential issues for the workshop.
**Self-Video Evaluation Reflection Questions**

The self-video evaluation observation reflection questions were designed to gather data on research questions as well as confirm specific aspects of themes found in the literature review. (The questions were the same for both the video self-evaluation and the classroom observation to compare the differences between assessing one’s own teaching and the teaching of others). Table 15 displays each of the questions and its intended purpose.

Table 15

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefly give some background on the lesson: (Subject, topic, objective)</td>
<td>1. Build background knowledge of lesson and to set context.</td>
</tr>
</tbody>
</table>
| What was the particular behavior, strategy or skill you focused on?     | 1. Assess ability to articulate 1-2 very specific behaviors (*deliberate practice*)  
2. Assess use of comprehensive teaching framework (*common language*)  
3. Monitor the *self-directed* focus which increases motivation and engagement. |
| As a result of viewing the video of your own teaching, what have you learned about teaching? | 1. Assess the development of the *metacognition* skills of assessing and reflecting.  
2. Practice of potential *self-modifying* teaching practices through the monitoring of own teaching.  
3. Measure the type of **immediate feedback** that is generated by the observer which can impact monitoring and modifying skills and ultimately teaching practices. |
| How will your findings impact your teaching?                            | 1. Monitor the *self-directed* focus which increases motivation and engagement.  
2. Assess the ability to adapt learning to real life application (*praxis*).  
3. Assess the development of the *metacognition* skills of assessing and reflecting. |
| What new questions about your teaching have emerged?                    | 1. Monitor the *self-directed* focus which increases motivation and engagement.  
2. Assess the ability to adapt learning to real life application (*praxis*).  
3. Assess the development of the *metacognition* skills of assessing and reflecting. |
Reflective Peer Observation Reflection Questions

The classroom observation reflection questions were designed to gather data on research questions as well as specific aspects of themes found in the literature review. Table 16 displays each of the questions and its intended purpose.

Table 16

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Briefly give some background on the lesson: (Subject, topic, objective)</td>
<td>1. Build background knowledge of lesson and to set context.</td>
</tr>
<tr>
<td>What was the particular behavior, strategy or skill you focused on?</td>
<td>1. Assess ability to articulate 1-2 very specific behaviors (deliberate practice)</td>
</tr>
<tr>
<td></td>
<td>2. Assess use of comprehensive teaching framework (common language)</td>
</tr>
<tr>
<td></td>
<td>3. Monitor the self-directed focus which increases motivation and engagement.</td>
</tr>
<tr>
<td>As a result of the classroom visit, what have you learned about your own teaching?</td>
<td>1. Assess ability to articulate metacognition skills through creating awareness of teaching practices, developing monitoring skills, practicing self-reflection by applying others teaching to own practice.</td>
</tr>
<tr>
<td></td>
<td>2. Assess potential self-modifying teaching practices through the monitoring of others and self-reflection</td>
</tr>
<tr>
<td></td>
<td>3. Monitor types of immediate feedback is generated by the observer and how it fits into their teaching.</td>
</tr>
<tr>
<td>How will your findings impact your teaching?</td>
<td>1. Monitor the self-directed focus which increases motivation and engagement.</td>
</tr>
<tr>
<td></td>
<td>2. Assess the ability to adapt learning to real life application (praxis).</td>
</tr>
<tr>
<td></td>
<td>3. Assess the development of the metacognition skills of assessing and reflecting.</td>
</tr>
<tr>
<td>What new questions about your teaching have emerged?</td>
<td>1. Monitor the self-directed focus which increases motivation and engagement.</td>
</tr>
<tr>
<td></td>
<td>2. Assess the ability to adapt learning to real life application (praxis).</td>
</tr>
<tr>
<td></td>
<td>3. Assess the development of the metacognition skills of assessing and reflecting.</td>
</tr>
</tbody>
</table>
Final Reflection and Evaluation

The final reflection and evaluation questions were designed to gather data on research questions as well as specific aspects of themes found in the literature review. Table 17 displays each of the questions and its intended purpose.
### Table 17

**Final Reflection and Evaluation Questions**

<table>
<thead>
<tr>
<th>Question</th>
<th>Purpose</th>
</tr>
</thead>
</table>
| As you reflect on this collegial study, what were two or three of your essential learnings?  (What big ideas or insights did you discover?) | 1. Assess ability to articulate 1-2 very specific behaviors (deliberate practice).  
2. Assess use of comprehensive teaching framework (common language)  
3. Monitor the self-directed focus which increases motivation and engagement. |
| How has this experience changed your current teaching?                   | 1. Assess the ability to adapt learning to real life application (praxis).  
2. Assess the development of the metacognition skills of assessing and reflecting.  
3. Measure amount of monitoring and modifications made to teaching.  
4. Assess amount and type of language about deliberate practice.  
5. Assess amount and type of language about expertise.  
6. Assess ability to recognize and verbalize expertise. |
| Compare your initial self-evaluation with your final evaluation using the Marzano Observational Protocol or Danielson Framework for Teaching. Identify two to three areas that you can focus on to improve your teaching (specific subsets of design questions). How did the protocol contribute to your thinking about this specific practice? | 1. Evaluate use of comprehensive teaching framework (common language).  
3. Assess amount and type of language about deliberate practice.  
4. Assess amount and type of language about expertise.  
5. Assess ability to recognize and verbalize expertise.  
6. Measure amount of monitoring and modifications made to teaching.  
7. Evaluate self-assessed progress based on previous evaluation. |
| As you plan future lessons, what insights have you developed that might be applied to new lessons? | 1. Evaluate use of comprehensive teaching framework (common language).  
3. Assess amount and type of language about deliberate practice.  
4. Assess amount and type of language about expertise.  
5. Assess ability to recognize and verbalize expertise.  
6. Measure amount of monitoring and modifications made to teaching.  
7. Evaluate self-assessed progress based on teaching framework. |
| What are your current goals:  
**Short term** (in the next nine weeks)  
**Medium term** (within the next year)  
**Long term** (within the next three years) | 1. Evaluate use of comprehensive teaching framework (common language).  
3. Assess amount and type of language about deliberate practice.  
4. Assess amount and type of language about expertise.  
5. Assess ability to recognize and verbalize expertise.  
6. Measure amount of monitoring and modifications made to teaching.  
7. Evaluate self-assessed progress based on teaching framework. |
The documents collected (self-video evaluation, peer observation reflection, and final reflection) were the primary documents used for the document review. These documents were used to identify common themes across all participants as well as to delineate any differences between the groups.

**Nature of Interviews**

Interviewing is a basic mode of inquiry. Recounting narratives of experience has been the major way throughout recorded history that humans have made sense of their experience (Seidman, 2006). When people tell stories they select details of their experience from their stream of consciousness. When they use the process of selecting and sharing the details of an experience, they must reflect on the experience and give it order to give that story meaning. Telling stories is a process that allows people to construct meaning from their experiences. Quality interviews elicit this process and provide a rich in-depth story to help understand lived experiences. The purpose of the interview is not to put things in someone else’s mind, but to access the perspective of the person being interviewed (Merriam, 1988).

The interviewer and respondent interaction is complex. Both individuals bring biases, predispositions, and attitudes that can interact with the data collected. According to Merriam (1988), “A good interviewer refrains from arguing, is sensitive to the verbal and nonverbal messages being conveyed, and is a good reflective listener” (p. 75). These skills can be learned and improved upon through practice. It takes a skilled interviewer to account for these factors and extract the worthwhile and pertinent information. The quality of data obtained may be dependent on several factors that can influence the respondent. This may be difficult for the researcher to discern, but some of the factors might include the respondent’s health, mood at the time of the interview, or motive for participating in the interview.
(Merriam, 1988). It is important to remember that what is gathered through interviews is the personal perspective of the respondent which could lead to distortion or exaggeration. For the purpose of this study, interviewing provided the researcher with the individual’s interpretation of the experience and how the experience transformed their thinking.

In this case study, interviews allowed the researcher to determine the impact on teacher’s metacognition and development of teacher expertise based on analysis of video recording of one’s own teaching and reflective peer observation using a comprehensive teaching framework.

Rubin and Rubin (2005) reviewed the strategy of responsive interviewing. Responsive interviewing is a complex balance of main questions, probes and responding to what the interviewee shares with follow-up questions. Main questions specifically address the research questions, probes help to illicit more information and to give the interview a more natural conversational tone as well as helping to seek details, and follow-up questions allow the interviewer to pursue points of interest (Rubin & Rubin, 2005). Thus, it was determined to use responsive interviewing questions. A set of eight main questions were used but the questions were followed up with probes to gain better understanding of the participants’ experience.

Main questions should be prepared in advance, but they may be changed during the course of the research project. The careful selection of the main questions helps to assure that the data allow the researcher to answer the research problem (Rubin & Rubin, 2005). The use of informal pilot studies allowed the researcher to develop and test questions to ensure that the questions were clear and with the purpose to solicit the targeted information from the participants.
Probes can be verbal or nonverbal (Rubin & Rubin, 2005). Continuation, elaboration, attention, clarification, steering, sequence, evidence and slant probes can be used to manage the conversations, to help get the interviewee to expand their thought, to return interviewees to the topic, or to obtain specific information. Having a repertoire of probes assures that the conversation will head in ways that help the researcher gather sufficient information. With this in mind, a series of probes were developed and used throughout the interview process.

**Appropriateness of the Technique**

Qualitative interviews can be conducted for multiple reasons. Weiss (1994) suggests conducting qualitative interview studies to develop detailed descriptions, integrate multiple perspectives, describe process, and identify variables and frame hypotheses. In this study, the researcher used qualitative interviews to help develop detailed descriptions of how the use of video analysis of a teachers own teaching and reflective peer observations combined with a comprehensive teaching framework impacted the development of teacher expertise. Weiss (1994) suggests “interviewing gives us access to the observation of others” (p. 1). He also states that researchers can learn “about people’s interior experiences” and “what people perceived and how they interpreted their perceptions” (p.1).

In this study, the multiple participants require a systemic method of organizing the data around common themes. The researcher integrated multiple perspectives of a potential supervision and evaluation process. Because each individual’s experience is unique to the individual, interviewing allowed for their personal story to be documented. The researcher was a participant observer who conducted one on one interviews with one before the workshop and one at the conclusion of the workshop.
Development of Reliable/Valid/Trustworthy Materials/Instrument(s)

The researcher incorporated the work of Rubin and Rubin (2005) and Weiss (1994) to generate questions in the style of responsive interviewing while also using the framework suggested by Creswell (1998).

The following interview questions were used as the main data collection for the study:

1. What was the process like for you when you used a framework to analyze a video recording of your own teaching?
2. What was the process like for you when you used a framework to analyze a reflective peer observation?
3. So overall, how did the whole process; the framework, video analysis and reflective peer observation inform your perception about your teaching?
4. When thinking about deliberate practice, which is practicing very specific skills to improve or engaging in activities that have been designed to improve your current performance. What, if anything, in the process impacted your deliberate practice? Please describe.
5. When thinking about metacognition, which we described as thinking about thinking during the workshop, we talked about self-managing, self-monitoring and self-modifying. What, if anything, in the process impacted your metacognition in regards to your teaching? Please describe.
6. When thinking about the framework how could it be improved?
7. How have you been impacted by participating in the workshop?
8. Is there anything else you would like to add or comment on?
This questioning route for interviews was piloted with teachers from an informal pilot study that was conducted in the fall of 2010. The informal pilot was in the form of a collegial study in which participants received three graduate credits for completion. The researcher piloted the interview questions with three teachers. The participants helped to clarify confusing language within the questions. The participants’ answers also revealed that particular emphasis should be placed on asking questions about metacognition. This was based on the realization that if the proposed process is to work effectively, that the model must impact the thinking and action taken by the individual teacher. While asking questions about the framework, video analysis and reflective peer observations would glean interesting information, learning what impacts metacognition may be the key to finding a model that can impact teacher supervision and evaluation. Therefore, the probes that were used were focused on asking about the concepts of self-managing, self-monitoring, and self-modifying.

**Procedure**

Qualitative interviews were conducted at the end of the workshop in June of 2011. Interviews took place in teachers’ rooms at their home schools or at the researcher’s office whichever was preferred by the interviewee. The interviews were conducted during a mutually agreed upon time between the participants and the researcher. Confirmation emails and phone calls were conducted prior to each interview. An introduction was used at the beginning of each interview to help define the purpose and to remind participants that they had previously signed a participant information consent letter and that their answers would be held in strictest confidence.

All interviews were transcribed in their entirety. The researcher used the services of a transcriptionist who signed a letter of confidentiality. Once the transcriptions were received,
the researcher verified their accuracy by listening to the audio recording and cross-checking it with the transcription.

After each interview, a copy of the transcript was sent to the participant for review and member checking. Once the transcript was returned to the researcher, a communication thanking the participant was sent out. Then steps in analyzing the interview data took place. The field notes from the interview and a scan of the interview to identify initial patterns were conducted. Participants were given a pseudonym to ensure confidentiality. The next step included coding the data from the interview for emerging themes and then connecting that data to the themes. Microsoft Excel was used to help analyze and interpret the data. Each interview was transcribed and coded separately, but then common and unique themes were discovered through comparison of the interviews. These themes were then used by the researcher to compare and contrast the other qualitative data collection methods which were focus group and document analysis to support triangulation of data and fidelity of the research methodology. Constant comparisons of the data were used to develop and confirm findings.

**Nature of Document Analysis**

The researcher utilized the technique of document review. Creswell (2005) believes “a valuable source of information in qualitative research can be documents” (p. 219). There are many variations of format documents can take. Documents can be both public and private records obtained during the research study. Documents examined by a case study researcher may include materials from the internet, private and public records, physical evidence, and instruments created by the researcher (Hancock and Algozzine, 2006).
Creswell also stated that “documents represent a good source of text (word) data for a qualitative study” (p. 219).

Instruments created by the researcher are also a way to collect information related to the research questions. These instruments may include surveys, questionnaires or examinations. Document analysis was a primary technique for this study as multiple documents were collected over an eight week time span to gauge the effectiveness of the applied treatment and its perceived impact on the participants’ teaching. Documents collected during this study included reflections on participants’ analysis of video of their own teaching, reflections based on the observation of other teachers teaching, and a final reflection based on the overall experience. Such documents help a researcher “understand central phenomena in qualitative studies” (Creswell, 2005, p. 219).

An advantage of using documents is that they were written from the perspective of the participants. In this study, because the documents were used as assignments for the workshop, it is believed that they were completed mindfully. Documents are also ready for analysis without the need to be transcribed as is necessary with interviews and focus groups.

“Exploring a text often depends as much on focusing on what is said—and how a specific argument, idea or concept is developed—as well as focusing on what is not said—the silences, gaps, or omissions” (Rapley, 2007, p.111). Rapely (2007) also advised studying documents by examining how specific issues are structured and organized along with how the text seeks to persuade or interpret an issue in a particular way. The documents that were submitted during the workshop will be compared with participants from within and outside their cohort in order to gain insight on the differences within the groups. Locating common
themes in one group that are absent in the other group may create potentially useful and significant findings.

**Appropriateness of the technique**

Yin (1989) identified documents as one of six forms of data collection to aid qualitative researchers. Creswell (1998) also considered documents to be an acceptable approach to data collection in qualitative studies. Document review offered the researcher an opportunity to collect information that other methods did not offer. The collection of the written reflections allowed the researcher to better understand how the participants were internalizing the concepts of a comprehensive framework, video analysis, reflective peer observation and metacognition. Each document reviewed served an explicit purpose in the creation, implementation and evaluation of a potential teacher supervision and evaluation model thus providing a systematic and sequential trail of events and reflections of each event.

**Development of Reliable/Valid/Trustworthy Materials/Instrument(s)**

The reflection questions that were developed for the self-video analysis, reflective peer observation reflection questions and final reflection were piloted with teachers from an informal pilot study that was conducted in the fall of 2010. The informal pilot was in the form of a collegial study in which participants received three graduate credits for completion. The researcher piloted all three of the reflection documents with five teachers. At the completion of the collegial study, the researcher asked for input on the questions that were posed on each of the documents. Adjustments were made at the suggestions of the participants.
Procedure

There were seven opportunities for documents to be collected for analysis. Each participant had an individual folder in which all of the documents that were generated were kept. Documents were also analyzed in terms of the group as a whole.

On three separate occasions, participants were asked to complete questions based on the video analysis of their own teaching. Participants were also asked to complete three separate, “Self-Video Analysis Reflection Question,” three separate “Peer Observation Reflection Questions,” after each participant completed three different teacher observations and finally, participants were be asked to complete a “Final Reflection” in which they answered questions pertaining to the overall experience. Documents were analyzed and coded.

Due to the nature of the workshop, as well as its timing in the school year, not all participants were able to complete all of the requested documents. During the workshop process, the researcher emphasized that quality was more important than quantity. It was stressed to the participants that they should complete the requirements that they were finding the most meaningful and useful to their situation. The participants in the workshop were dealing with demands on typical of any classroom teacher such as field trips, Advanced Placement exams, final exams, curriculum writing, district meetings, other district professional development opportunities, parent meetings, IEP meetings and transition meetings to the high school.

Nature of Focus Groups

Various forms of group interviews have been used since at least the 1920’s (Morgan, 1998b). Focus groups are used in research to help understand how people think and feel
about a particular issue, product, service, or idea (Krueger & Casey, 2000). The use of focus group interviews for this study allowed for each participant and the researcher to learn how others experienced the common event of a professional development opportunity entitled, “Developing Teacher Expertise Workshop.” The focus group allowed participants the opportunity to be more descriptive of their experience and to compare and contrast the collective group experience. According to Krueger and Casey (2000), while interviews can achieve similar ends, focus groups offer an interactive quality that can influence participant responses and entice deeper nuances to come out. The focus groups lasted one and one half hours and provided an opportunity for other participants to hear each other’s journey through the process.

Often, group members influence one another by responding to ideas and comments made by others. Krueger and Casey stated, "the intent of the focus group is to promote self-disclosure among participants" (p. 7). Moderators should use set questions that are more general in nature in the beginning and more specific as the focus group proceeded. Using set questions allows for higher quality analysis and better consistency (Krueger, 1998). “The questioning route produces more efficient analysis because it minimizes subtle differences in questions that could alter intent” (p. 12). A total of eight primary questions were used during the focus group. These questions were developed from data analysis of initial findings from participant interviews and submitted documents.

**Appropriateness of the Technique**

The focus group took place after the completion of a professional development opportunity entitled, “Developing Teacher Expertise Workshop.” The researcher used the focus group as a means to verify themes collected from previous interviews. Morgan (1998b)
identified four basic uses of focus groups including: problem identification, planning, implementing, and assessing. In evaluation research, specifically process evaluation, the assessing use was addressed. In the assessing stage, the researcher attempts to understand what happened in the study. "Qualitative assessments help interpret what happened" (p. 15). Further, "focus groups can give you insights into how and why you got the outcomes you did" (p. 15). For the purposes of this study, focus groups were used to gain insight, confirm, clarify and add to findings and also to fill in gaps that existed from previous gathered data.

**Development of Reliable/Valid/Trustworthy Materials/Instrument(s)**

The focus group questions were an extension of the interview questions and were based on findings compiled during the earlier data collection efforts of interviews and document review.

**Procedure**

The focus group interviews were conducted at the completion of the workshop entitled “Developing Teacher Expertise Workshop” and after all of the coding on all previous data was complete. The purpose of the focus group was to aid in the internal validity of the data and to better understand the participants’ experience. The participants of the focus group were asked a series of questions to verify if the themes accurately reflected their experience during the workshop. The researcher invited each of the teachers to participate in a focus group. There were two separate focus groups, one for the Danielson Cohort and one for the Marzano Cohort. The focus group interviews took place in January, 2012.

The following questions were used during the focus group interviews.

1. How did using a comprehensive framework impact your teaching?
2. How did analyzing video of your own teaching impact your teaching?
a. Did analyzing the videos of your own teaching change your perception of your own teaching?

3. How did completing peer observations impact your teaching?
   a. Did seeing others teach put the framework in context?

4. How did utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of your own teaching and reflective peer observations impact your teaching?
   a. How did focusing on 1-2 elements of teaching impact your experience?
   b. How did a common language for reflection and the structured reflections impact the experience?
   c. Can you comment on the impact of the written reflections?
   d. Did you feel the process produced effective feedback?
   e. How does this feedback differ from a typical evaluation process, where an observer observes your teaching for one or two class periods and then holds a follow-up conference to discuss the observation?

5. How did background knowledge in expertise development and growth mindset impact your experience?

6. Do you think it is possible for teachers to engage in deliberate practice to improve their teaching?

7. Do you feel that you are a better teacher after participating in the workshop?

8. Show participants a copy of the proposed model (pyramid): Do you think that this is an accurate representation your workshop experience?
Data Analysis

According to Marshall and Rossman (2006), analytic procedures fall into seven phases: 1) organizing the data; 2) immersion in the data; 3) generating categories and themes; 4) coding the data; 5) offering interpretations through analytic memos; 6) searching for alternative understandings; and 7) writing the report. Most importantly, these researchers suggest that each phase of data analysis must entail data reduction, or the bringing of data into manageable chunks. Miles and Huberman (1994) echoed this need for data reduction as a form of analysis to help sort, focus, and organize data in a manner that conclusions were drawn from it. Organization of the data using these structures occurred in an ongoing fashion throughout the entirety of the study. Separate folders were maintained for each type of data collection effort. Interviews were organized both by interviewee and merged by response to question type. Document review was organized into folders by types of document. Finally, focus group materials were organized both by group and merged by response for comparison purposes.

Role of the Researcher

Qualifications

The researcher has more than 12 years of experience in education. Seven years were spent teaching English at the secondary level. The researcher also has over five years of experience as an administrator at the secondary level in which he has been responsible for teacher evaluations. He has also facilitated three separate graduate level classes similar to the process that was used for this research study. The researcher is currently enrolled in a doctoral program. As part of the coursework for this program, coursework has been completed in research, leadership, learning, and service. Additionally, Ph.D. level
coursework was taken in the following: statistics, advanced research methods, critical analysis, and advanced theory and model building.

**Biases**

The participant-observation method has inherently potential biases. According to Yin (2003) there is the potential that a researcher involved as a participant may lack the ability to be a true observer because they become too close or attached to the case being studied. The researcher has sought to minimize this issue by having another individual review the coded interviews and focus group interviews to search for biases. It should also be noted that the chair of this study project has an established relationship with Robert Marzano and has recently co-authored a book with him. This could potentially bias the outcome of the study however, the researcher used two committee members and three critical friends as readers of the project to help limit this bias.

**Responsibilities**

Numerous responsibilities were evident in this research endeavor. The expectations outlined by the Institutional Review Board had to be met. The researcher also had the responsibility of working with the designated district staff in a professional manner which included: trustworthiness, timeliness, objectiveness, and fairness. It was essential that all collected data followed best practices in research in order to obtain necessary information to guide and shape recommendations and future planning for the school.

The researcher was involved with the planning and implementation of the “Developing Teacher Expertise Workshop” professional development experience. The researcher gained IRB approval in March 2011. A signed participant agreement letter was
given to each participant that stated the purpose of the study and detailed the data collection methods each participant would be engaged with during the study.

The researcher was responsible for creating questions and conducting individual interviews and focus group interviews. After each interview, a transcribing service was used to create a written transcript of each interview. Interviewees were given an opportunity to member check their transcripts. The researcher utilized peer reviewers to help analyze data and generate themes from transcripts.

**Timeline**

**Time Span**

This research study took place from March 2011 to January 2012. The study began by identifying a research question, conducting a literature review, and creating a study design. Once initial efforts had been made regarding these areas, the researcher submitted his efforts to the Institutional Review Board (IRB) for approval to officially begin the study and collect data. With IRB approval in March of 2011, data were primarily collected from April, 2011 to June, 2011. Interviews were conducted in May and June, 2011, and interview transcripts were analyzed during the months of June, July and August, 2011. A focus group was conducted in January, 2012 with the transcript being analyzed in January, 2012.

Participants in the study took part in a teacher workshop from April, 2011 to June 2011. Teacher focus groups were conducted in January, 2012 to verify findings and engage in discussion regarding how teachers perceived the impact of the workshop on their teaching. Document collection occurred in an ongoing fashion from April, 2011 to June 2011. However, an emphasis on analyzing data in an ongoing fashion throughout the study was employed so that constant comparison could be used. In addition, the researcher spent June,
2011 to March, 2012 to further analyze data, synthesize findings, and extrapolate on them in a discussion format to include recommendations for the school site. Table 18 displays the chronology of events and procedures.

**Chronology of Events and Procedures**

Table 18

*Chronology of Events and Procedures Undertaken*

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>December, 2009-January, 2011</td>
<td>research question developed, conducted extensive literature review</td>
</tr>
<tr>
<td>November, 2010-February, 2011</td>
<td>research design</td>
</tr>
<tr>
<td>March, 2011</td>
<td>received IRB approval</td>
</tr>
<tr>
<td>February, 2011- March, 2011</td>
<td>developed workshop for study</td>
</tr>
<tr>
<td>March, 2011</td>
<td>recruited participants for study</td>
</tr>
<tr>
<td>April, 2011</td>
<td>conducted workshop pre-existing documents from former evaluations collected video analysis of own teaching #1 collected self-evaluation using framework #1 collected analyze data from documents</td>
</tr>
<tr>
<td>May, 2011</td>
<td>classroom observation of another teacher #1 collected video analysis of own teaching #2 collected classroom observation of another teacher #2 collected classroom observation of another teacher #3 collected video analysis of own teaching #3 collected self-evaluation using framework #2 collected analyze data from documents</td>
</tr>
<tr>
<td>June, 2011</td>
<td>interviewed participants transcribed interviews analyzed data from documents analyzed date from interviews</td>
</tr>
<tr>
<td>July-December, 2011</td>
<td>analyzed data from documents analyzed date from interviews</td>
</tr>
<tr>
<td>January, 2012</td>
<td>conducted focus group</td>
</tr>
<tr>
<td>January-March, 2012</td>
<td>analyzed data and cross referenced data</td>
</tr>
</tbody>
</table>
Summary/Coherency of Design

Validity/Trustworthiness

The research design of this study incorporated several types of data collection and methods that when utilized jointly helped to answer the research question. Interviews offered a way to gain an understanding of how the participants felt the study impacted their teaching. Document review allowed the researcher to examine the level of self-reflection, self-monitoring, and self-modifying practices during video analysis of individual teaching and teacher observations, as well as its perceived impact on deliberate practice and development of expertise. Lastly, focus groups helped to confirm findings in the study by having participants offer support or concern over generalizations shared. Focus groups helped to provide member checks by giving feedback, interpretation, and insight.

By combining the above methods for data collection, a comprehensive examination was conducted that utilized rigorous standards for research and allowed the researcher to determine the effectiveness of implementing a teacher evaluation process that put emphasis on internalization that lead to deliberate practice and to development of expertise through self-reflection, self-monitoring and self-modification.

Rich, thick description was used to help keep narrative interpretation close to actual data through participant quotes and field notes. Peer review was utilized in analyzing interview data. Lastly, the researcher used both descriptive and interpretive validity. A conscious effort was upheld throughout the study to keep the reporting of findings factually accurate and to portray accuracy in meaning given by participants.
**Triangulation**

According to Yin (1994), a strong case study must include the use of multiple pieces of evidence. The researcher used triangulation of both data collection and data analysis. Thick, rich description and depth is the key to ensuring validity and triangulation. According to Stake (2008), “Triangulation has been generally considered a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation” (p. 133). The study incorporated interviews, document review and focus groups. Findings from one method of data collection were verified in another method which helps to support the findings of this study. As themes began to become evident, the researcher met with colleagues to verify the findings. These peer reviewers provided the researcher with an additional resources to ensure that the findings were accurate and non-biased.

**Limitations**

This study examined the experiences of fifteen teachers. The participation of the teachers was done voluntarily. All of the volunteers were female which may have impacted the results of the study. It is possible that the study only attracted teachers that by their nature, are predisposed to participating in activities of continuous improvement which may impact the findings of the study. The researcher was a participant observer.

**Summary and Forecast**

Chapter Three described the research design of case study that was used to conduct the study, with particular attention to methodology and technique applied to data collection and analysis. The chapter detailed interviews, document analysis and focus group interviews process and procedures. Finally, chapter Three validated the qualifications of the research project.
Chapter Four presents a summary of the data generated by the study design as follows: participant profiles, participant interviews, document review, and focus groups. Findings are presented as it related to each research question. Each finding is presented as a comparison between cohorts to help highlight the similarities and differences and general impact of the comprehensive framework on the process.
CHAPTER FOUR: RESEARCH RESULTS

The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. The research question guiding this study was: How does a comprehensive teaching framework, combined with self-video analysis and reflective peer observations impact metacognition and the development of teacher expertise? Related questions that guided this study were:

1. To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of one’s own teaching?
2. To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification?
3. To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring and self-modification?
4. Were the perceptions of teacher’s performance impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?
5. Did utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways?

The design of this study was a qualitative case study employing the data collection methods of interview, focus group and document analysis. The researcher was a participant-observer during this workshop experience. This role provided an opportunity for deeper
relationship with the participants and allowed for a more thorough understanding of their experience. Fifteen teachers agreed to participate in a workshop entitled, “Developing Teacher Expertise”. The workshop provided professional development in the areas of a comprehensive teaching framework (the Marzano Observational Protocol or the Danielson’s Framework for Teaching), self-reflection through the analysis of the recording of one’s own teaching and reflective peer observation. Two cohorts were created with the “Danielson Cohort” using the comprehensive teaching framework, the Danielson’s Framework for Teaching and the “Marzano Cohort” using the comprehensive teaching framework the Marzano Observational Protocol. Each cohort met on three separate occasions for three hours each. During this time, participants were introduced to their respective comprehensive teaching framework, the concepts of developing expertise, deliberate practice, metacognition, growth mindset and logistics for recording and analyzing their own teaching as well as conducting reflective peer observations.

Of the fifteen teachers that started, thirteen completed the workshop and took part in interviews and submitted reflections based on their experience that were used in the document analysis. As previously stated, two participants failed to complete the workshop due to conflicts with their job and commitments that prevented them from participating in the workshop. Participants submitted a written reflection on specific questions for each video analysis and reflective peer observation they completed. Participants also submitted a final reflection based on the experience as a whole.

One-on-one interviews were conducted via phone prior to the workshop experience to gain baseline data for the participants. One-on-one in person interviews were also conducted at the completion of the workshop experience. In addition seven months after the workshop,
a confirming focus group was conducted for “Danielson Cohort” and “Marzano Cohort.” All participants were invited to attend the focus groups but due to various conflicts each group consisted of three participants.

During the interviews participants were asked to comment about their experience. Questions were asked to obtain information about teacher’s perceptions of the impact using a comprehensive teaching framework, analyzing video of their own teaching, conducting reflective peer observations and completing written reflections. Questions were also asked about the concepts of expertise, deliberate practice, and metacognition and their impact on the participants’ experience.

The focus group consisted of members from similar groups. Participants were asked questions regarding their experiences using a comprehensive teaching framework, analyzing video of their own teaching, conducting reflective peer observations, written reflections, metacognition, deliberate practice and expertise development. Participants were also given a copy of the model designed by the researcher to offer input on the accuracy and limitations of the proposed model.

The researcher conducted a literature review of related research and theory in the areas of expertise, teacher supervision and evaluation, comprehensive teaching frameworks, video analysis of teaching, peer observation, reflection and metacognition. The literature review provided a framework for promoting teacher growth by using the development of expertise model based on deliberate practice suggested by Ericsson (1996) and Ericsson et al., (1993). The literature review also discussed current limitations within teacher supervision and evaluation programs along with reviewing potential tools that could impact
teacher growth in the areas of a comprehensive teaching framework, video analysis, peer observations and metacognition.

This chapter presents a summary and analysis of the data generated by the interviews, focus groups and document review.

The results were reported in three sections. The first section introduces the reader to each of the fifteen participants. The participant profile describes demographic information, what each participant hoped to gain from participating in the workshop, and what their beliefs were in regard to teacher evaluation, reflection and how the participants attempted to improve their teaching. This information was taken from preliminary interviews conducted before participants took part in the workshop. The second section will report themes generated from the findings of the participants interviews and focus group. Primary themes were determined a key finding if at least half (7/13) of the participants or more than 75% of participants from one cohort (4/5 for “Danielson Cohort” or 6/8 for “Marzano Cohort”) reported it as part of their overall experience. The third section will report themes generated from the findings of the documents (written reflections) submitted by the participants.

Presentation and Summary of Data

Description of Site and Sample

Descriptive data about site(s)

This qualitative comparative case study focused on the participants from a professional development workshop that lasted over a six week period. The research site was a large, urban, K-12 public school district located in south-eastern Wisconsin. According to internal district documents, the district employs 800 teachers who work in 17 different schools across the district. Approximately 9000 students attend the district. At the time of
the study, demographics of the district were as follows: White 65.7%; Hispanic 18%; African-American 9.3%; Asian 3.1% and American Indian 1.4%. In addition, 51.9% of families were listed as economically disadvantaged.

**Descriptive data about sample**

This qualitative comparative case study focused on the experiences of 15 teachers who participating in a workshop entitled, “Developing Teacher Expertise Workshop.” The teachers were divided into two cohorts. The “Danielson Cohort” consisted of six teachers and the “Marzano Cohort” consisted of nine teachers. The discrepancy in size was due to scheduling conflicts. All possible attempts were made to create cohorts of equal sizes. All 15 of the participants were female. One participant from each cohort failed to complete the workshop. Thus, all statistical information were calculated using a total of 13 participants with five participants from the Danielson Cohort and eight from the Marzano Cohort. Table 19 displays characteristics of each of the participants. A comparison of average years of experience was previously detailed in Table 10. The Danielson Cohort average experience was 11.5 years and the Marzano Cohort average was 11.7 years. The participants’ pseudonym, the cohort to which they belonged, the grade levels they teach, their years of experience, their primary subject taught and highest level of education attained are displayed in the following table.
The following table lists all of the processes and documents that were completed for the study. Participants were asked to participate in an interview before the workshop, complete three written video analysis reflections and three written peer observation reflections, as well as a written final reflection, a post workshop interview and a focus group. Table 20 displays a complete listing of the process and documents that were completed by the participants. Table 20 also compares the average completion of processes and tasks for each cohort. Each cohort had one participant quit participating in the study due to scheduling conflicts. Thus the percentages are calculated with five possible for the Danielson Cohort and eight possible for the Marzano Cohort. The Danielson Cohort completed 86.6% of the assigned video reflections while the Marzano Cohort completed 79.1%. The Danielson Cohort completed 73.3% of the peer observation reflections while the Marzano Cohort completed 75%.

Table 19

Participant Characteristics

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Cohort</th>
<th>Grade Level</th>
<th>Exp.</th>
<th>Subject</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samantha</td>
<td>Danielson</td>
<td>K-5</td>
<td>18</td>
<td>Music</td>
<td>MA</td>
</tr>
<tr>
<td>Nancy</td>
<td>Danielson</td>
<td>6-8</td>
<td>9</td>
<td>Social Studies</td>
<td>MS</td>
</tr>
<tr>
<td>Karen</td>
<td>Danielson</td>
<td>6-8</td>
<td>5</td>
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<td>BS</td>
</tr>
<tr>
<td>Lisa</td>
<td>Danielson</td>
<td>6-8</td>
<td>12</td>
<td>Spec. Ed</td>
<td>BS</td>
</tr>
<tr>
<td>Tiffany</td>
<td>Danielson</td>
<td>9-12</td>
<td>3</td>
<td>Spec. Ed</td>
<td>BA</td>
</tr>
<tr>
<td>Trinity</td>
<td>Danielson</td>
<td>9-12</td>
<td>22</td>
<td>Spec. Ed Lead</td>
<td>BA</td>
</tr>
<tr>
<td>Julie</td>
<td>Marzano</td>
<td>K-5</td>
<td>20</td>
<td>Elementary</td>
<td>MS</td>
</tr>
<tr>
<td>Eva</td>
<td>Marzano</td>
<td>K-5</td>
<td>3</td>
<td>Music</td>
<td>BA</td>
</tr>
<tr>
<td>Rachel</td>
<td>Marzano</td>
<td>K-5</td>
<td>3.5</td>
<td>Elementary</td>
<td>BA</td>
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<tr>
<td>Christy</td>
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<tr>
<td>Paige</td>
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<tr>
<td>Vanessa</td>
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<tr>
<td>Sandra</td>
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<td>Spec. Ed</td>
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<tr>
<td>Molly</td>
<td>Marzano</td>
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<td>13</td>
<td>English</td>
<td>MA</td>
</tr>
<tr>
<td>Patricia</td>
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<td>9-12</td>
<td>10</td>
<td>Social Studies</td>
<td>MA</td>
</tr>
</tbody>
</table>
38 of a possible 45 processes or tasks for a completion percentage of 84.4%. Before the focus group was conducted the Marzano Cohort had completed 60 of a possible 72 processes or tasks for a completion percentage of 83.3%. Due to various conflicts each focus group consisted of only three participants. At the completion of the study the Danielson Cohort had completed 82.0% of the processes and documents whereas the Marzano Cohort had completed 78.8%. Because each cohort was so similar in their completion success rate it improved the validity of the inferences in the analysis.

Table 20

_Cohort Average of Processes Completed and Documents Submitted by Workshop Participants_

<table>
<thead>
<tr>
<th>Documents Collected</th>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Completed</td>
<td>% Completed</td>
</tr>
<tr>
<td>Preliminary Interview</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>Video Analysis Reflection 1</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>Video Analysis Reflection 2</td>
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</tr>
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<tr>
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</tr>
<tr>
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<tr>
<td>Peer Observation Reflection 3</td>
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</tr>
<tr>
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</tr>
<tr>
<td><strong>Total Processes / Documents Collected</strong></td>
<td><strong>41</strong></td>
<td><strong>82.0%</strong></td>
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Participant profiles

The professional development workshop entitled the Teacher Development of Expertise Workshop, on which this study was based, consisted of fifteen members. Thirteen of the participants completed the workshop and took part in interviews. Two members were not interviewed because they each missed approximately 50% of the workshop meeting hours. In this section, each participant profile is presented. Each participant was assigned a pseudonym to ensure that their identity was protected.

Each of the participants’ profiles were created using data from their preliminary interview and a participant information sheet that they completed at the first workshop meeting. Participants were sent their profile for edit and approval.

Danielson Cohort

The Danielson Cohort consisted of six teachers at the beginning of the study but one of the teachers was unable to continue due to various conflicts. This section will serve as an introduction and provide a description of each of the participants. The Danielson Cohort utilized the Danielson Framework for Teaching as their model of a comprehensive teaching framework.

Samantha

Samantha was white female in her 18th year of teaching. She was an instrumental music teacher who is currently teaching at three different elementary schools. Samantha obtained her Masters of Arts degree.

In a preliminary interview conducted before the workshop, Samantha was asked if she thought her district’s current supervision and evaluation process improved her teaching.
Her response was, “Oh it’s not working. I haven’t been observed in at least five years I receive no feedback. I don’t think it works.” Samantha was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, “So I think mostly talking, thinking on my own part, how I can improve this on my own.”

During the interview Samantha was asked if she had ever analyzed video of her own teaching, she said in the past she had done this but this was done mostly to analyze the performance of her students and not necessarily to evaluate her own teaching. Finally, when Samantha was asked what she hoped to gain from the workshop she responded that she was:

hoping to look at what I am doing or how I am doing a little differently, getting insights from other teachers…We don’t get much time to collaborate from people in our area and we really get less time with people outside of area….I am looking forward to talking with other folks and see what they are doing or how they are doing it.

**Nancy**

Nancy was a white female in her 9th year of teaching. She was a social studies and balanced literacy teacher who is currently teaching at an intermediate school. Nancy obtained her Masters of Arts degree and has an additional 12 credits.

In a preliminary interview conducted before the workshop, Nancy was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “No, because unfortunately there doesn’t seem to be enough time to have a follow-through with the meeting or evaluation. It is hard often to get some of that reflection and follow-through or to have the time to evaluate.” Nancy was also asked what tools or
processes she uses to reflect on her teaching. She responded by saying she tries to make quick written notes on her lesson plans.

During the interview Nancy was asked if she had ever analyzed video of her own teaching, she said during student teaching and some during her master’s program she video recorded herself, but she has not done it since. She also stated that she wasn’t really comfortable recording herself and that she felt it could be a distraction to both her and her students. Finally, when Nancy was asked what she hoped to gain from the workshop she responded by saying;

[I want to gain] more ideas to help improve what I currently do. I am very young and early in my years of teaching so I know I have many more to go and so obviously any opportunities I can get to improve toward my students and have them become more successful in the classroom.

Karen

Karen was a black female in her 5th year of teaching. She was a language arts and social studies teacher who is currently teaching at an intermediate school. Karen obtained her Bachelors of Science degree plus an additional 15 credits. She was working on her master’s degree.

In a preliminary interview conducted before the workshop, Karen was asked if she thought her district’s current supervision and evaluation process improved her teaching. She stated, that her evaluations from administration were mostly positive but “they were pretty much descriptive in what I did. They didn’t really offer a whole ton of feedback on things that I could improve. So to be completely honest, I would have to say no.” Karen was also asked what tools or processes she uses to reflect on her teaching. She responded by saying,
that she uses data (student results) and lesson plans to help her analyze what she could do better. She also mentioned that she asks other co-workers for their input to help her improve.

During the interview Karen was asked if she had ever analyzed video of her own teaching, she said in the past while completing her undergrad. Finally, when Karen was asked what she hoped to gain from the workshop she stated:

I am always looking for different ways to do things….I am in school so I just try to attend workshops, try to get on development that I can so whenever I see there is a workshop that I can sign up for to better my teaching, I will sign up for it. So, I am real big on just continuous learning.

Lisa

Lisa was a white female in her 16th year of teaching. She was a special education teacher who is currently teaching at an intermediate school. Lisa obtained her Bachelors of Science degree plus an additional 16 credits.

In a preliminary interview conducted after the first workshop meeting (Lisa was the only participant who completed the interview after the initial workshop meeting due to various conflicts), Lisa was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “Yes, I do. So looking through the rubric has been interesting and focusing on areas that I can improve as a teacher.” Lisa was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, that she tries to keep up by reading current practice and by attending workshops. She didn’t specifically outline a process for reflection in her response.

During the interview Lisa was asked if she had ever analyzed video of her own teaching, she said “it had been a long time” and that she was looking forward to that part of
the process. Finally, when Lisa was asked what she hoped to gain from the workshop she stated that she was curious to see different styles of teaching.

Due to conflicts that arose during the workshop, Lisa was unable to finish the workshop and did not submit any reflections nor was she interviewed at the completion of the project.

**Tiffany**

Tiffany was a white female in her sixth of teaching with three years in the classroom and an additional three years as a substitute teacher. She was a special education teacher who is currently teaching at a secondary school. Tiffany obtained her Bachelors of Arts degree plus an additional 30 credits and was finishing her master’s degree.

In a preliminary interview conducted before the workshop, Tiffany was asked if she thought her district’s current supervision and evaluation process improved her teaching. She stated;

No. I do not believe it improves teaching because I don’t necessarily believe that supervision is what improves teaching. Supervision is a great monitoring tool, but I believe that improving teaching has to be done with the use of workshops or further education, things like that. I think observation by administration doesn’t improve teaching.

Tiffany was also asked what tools or processes she utilized to reflect on her teaching. She responded by saying, that she uses a mental process to “reflect on” if students were receptive to the material as well as how the strategy worked and how she will adjust it next time. She stated that she didn’t write things down but that she had a reflective piece that was part of her current Professional Developmental Plan.
During the interview Tiffany was asked if she had ever analyzed video of her own teaching, she said “No. That is one part that I am uncomfortable about.” Finally, when Tiffany was asked what she hoped to gain from the workshop she responded; “By doing the self-analysis, I will be able to apply what I am learning at the same time (from her master’s class) and be able to see a results in myself in this self-reflection. Am I really applying it? What else can I change? What else can I do to make it even better?”

**Trinity**

Trinity was a white female in her 25th year of teaching. She was special education lead teacher who is currently working at three different intermediate schools. A lead teacher is not involved in daily instruction but has more administrative responsibilities and is used as a resource for both teachers and administrators. Trinity obtained her Bachelors of Science degree plus an additional 28 credits.

In a preliminary interview conducted before the workshop, Trinity was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “I think it helps you self-reflect on your teaching practice in a more structured way, goal setting and having someone talk it through with you. That is the only way I believe you can improve your teaching skills.” Trinity was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, “I guess that is where I could show some improvement. I basically do it in my mind. I think it through at the beginning. I think it through the whole day and the whole day proceeding. Then I might make changes on the lesson plan but I really don’t have a formal tool or process.”

During the interview Trinity was asked if she had ever analyzed video of her own teaching, she said “not since student teaching, many years ago. It has been a long time.”
Finally, when Trinity was asked what she hoped to gain from the workshop her response was; “More of a process to improve my teaching and the tools and also to help others because I am in a position of mentoring and making classroom walk-through observations. So how I can affect the same changes in others?”

**Marzano Cohort**

The Marzano Cohort consisted of nine teachers at the beginning of the study but one of the teachers was unable to continue due to various conflicts. This section will serves as an introduction and provides a description of each of the participants. The Marzano Cohort used the Marzano Observational Protocol as their model of a comprehensive teaching framework.

**Julie**

Julie was a white female in her 20th year of teaching. She was a first grade teacher teaching at an elementary school. Julie obtained her Masters of Science degree plus an additional 18 credits.

In a preliminary interview conducted before the workshop, Julie was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was,

No because I think it’s not consistent enough. I think with everything else just even in the goal setting and then the follow-up, it is more a self-tool as opposed to a collaborative type of evaluation. I feel like it does need to be improved upon.

Julie was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, that she talks to peers and to the teachers that are on her grade level team.
During the interview Julie was asked if she had ever analyzed video of her own teaching she said that she did “in college” but has not done so since because the she hasn’t had the opportunity. Finally, when Julie was asked what she hoped to gain from the workshop she stated, “I would really like to better my teaching and be more self-reflective and find a good tool to do that.”

Eva

Eva was a white female in her first year of teaching. She was a music teacher who was teaching at an elementary school. Eva obtained her Bachelors of Arts degree.

In a preliminary interview conducted before the workshop, Eva was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “Yes,” because “when I have been observed I have always been asked thought provoking questions and it caused me to really look at what I can do better in the classroom.” Eva was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, “Journaling for myself mostly and I guess just general note taking like making my lesson plans.”

During the interview Eva was asked if she had ever analyzed video of her own teaching she said, “Not since student teaching and only once.” Finally, when Eva was asked what she hoped to gain from the workshop she responded that “I hope it will cause more reflection and make it even clearer to me what I can do to be more effective in the classroom and I think watching myself on video will be very helpful.”
Rachel

Rachel was a white female in her fourth year of teaching. She was a pre-kindergarten teacher who was teaching at an elementary school. Rachel obtained her Bachelors of Arts degree plus an additional 18 credits.

In a preliminary interview conducted before the workshop, Rachel was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “Yes, because when I get active feedback I am able to correct myself and how I teach things.” Rachel was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, “Journaling of writing down what might have went well, what didn’t go well. I also speak with colleagues and discuss things, xyz needs to get done, and how we can get that done.” She also said that she goes to other resources such as teacher manuals or current professors.

During the interview Rachel was asked if she had ever analyzed video of her own teaching she said, “I haven’t. I guess because it is something I really never thought to do. But I think it will be completely beneficial to do so to see what I am doing wrong….”

Finally, when Rachel was asked what she hoped to gain from the workshop she stated:

I hope to improve the self-reflection part. I think that will be, and going back to the videotaping, great to see what my strengths are and what my weaknesses are…People can tell you things and sometimes you might just, “Okay, whatever.” But to actually see it in action, I am going to be able to really look at that and see how I can fix or continue with certain characteristics or behaviors.”
Christy

Christy was a white female in her 10th year of teaching. She was a special education teacher who was teaching at an intermediate school. Christy obtained her Masters of Arts degree plus an additional six credits.

In a preliminary interview conducted before the workshop, Christy was asked if she thought her district’s current supervision and evaluation process improved her teaching. In her response Christy described specific components of the district’s current framework, which is the Danielson Framework for teaching:

No, because the guidelines and rubrics are really vague without a lot of prior direction. They give you some guidance and kind of tell you domains but they don’t give you a lot of direct feedback on what good teaching looks like or what the difference between good teaching and okay teaching looks like. They just lack some of the stuff, specifics or examples that I think would make it a more informative process.

Christy was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, “I don’t do anything formally. There have been times where I have written about it or times where I have gone back and re-examined lesson plans, but my downfall is not having written them down consistently, not using the same process regularly.”

During the interview Trinity was asked if she had ever analyzed video of her own teaching her response was “I have not. It is something I thought about doing but just have not really the impetuous or a motivation to do it without kind of the structure of a bigger
process.” Finally, when Christy was asked what she hoped to gain from the workshop she responded:

Just a better picture of what my teaching really looks like. The opportunity to reflect with a little bit more structure and also to do it alongside colleagues who are kind of going through the same process. I am hoping to have some aha moments like I never noticed that I did that, or I really notice that I do this too much or maybe I do this well. Hopefully be able to take that and use that to take my teaching to the next step.

Paige

Paige was a white female in her 21st year of teaching. She was a social studies teacher who was teaching at an intermediate school. Paige obtained her Masters of Arts degree plus 30 credits. Paige is also a National Board Certified teacher.

In a preliminary interview conducted before the workshop, Paige was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “Not the way that it is set up. It has very good intentions but not necessarily, there should be some tweaking that needs to happen.” Paige was also asked what tools or processes she uses to reflect on her teaching. She responded by saying that she has utilized videotaping (during the National Board Certification process) and she “bounces” ideas off of other teachers if they are in the room. Otherwise, she just analyzes student results to gauge her effectiveness. At the end of a unit, she will “take a look back” to see how she could change.

During the interview Paige was asked if she had ever analyzed video of her own teaching she had video recorded three lessons and analyzed her own teaching strategies during the National Boards Certification process. She felt it was a great tool and that “it
really does show exactly what you are doing and how you can correct it or maybe come back at things differently.” Finally, when Paige was asked what she hoped to gain from the workshop she responded:

I am always striving to be better because as I get up in teaching as the years progress, I know that styles change. So in order to stay fluid with teaching you always change yourself so I am hoping to find out how I can improve and make things better.

Paige was hoping to improve her teaching by participating in the workshop.

Vanessa

Vanessa was a white female in her 10th year of teaching. She was a special education teacher who was teaching at an intermediate school. Vanessa has obtained her Masters of Arts degree.

In a preliminary interview conducted before the workshop, Vanessa was asked if she thought her district’s current supervision and evaluation process improved her teaching. She stated that the current process does improve teaching when there is enough time. However, the current process doesn’t allow for all teachers to get feedback every year and that multiple years can go by before teachers receive feedback. Vanessa was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, that she used data from assessments as well as IEP’s (Individual Education Plans) to ensure that students are getting the instruction they need. Vanessa did not mention a formal process.

During the interview Vanessa was asked if she had ever analyzed video of her own teaching she said no and that she didn’t “have a real good reason” for not doing so in the past. Finally, when Vanessa was asked what she hoped to gain from the workshop she stated:
More perspective, like I said, I have never videotaped myself to see what I am missing or not missing. I get a lot of my feedback on what I am doing from how someone else sees it, so I would be really interested to look at my own self from a more objective perspective and see if that will help me even further improve my teaching.

Vanessa was looking forward to having the opportunity to focus on improving her teaching.

**Sandra**

Sandra was a white female in her 12th year of teaching. She was a special education lead teacher who was working at two secondary schools. A lead teacher is not involved in daily instruction but has more administrative responsibilities and is used as a resource for both teachers and administrators. Sandra obtained her Bachelors of Science degree plus an additional 30 credits.

In a preliminary interview conducted before the workshop, Sandra was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “That is a hard question…I didn’t find it exceedingly helpful. I found the feedback from my parents and students and co-teachers since I am in special ed. more helpful than the official evaluative process.” Sandra was also asked what tools or processes she uses to reflect on her teaching. She stated that she looks at how students are making growth or changing and then makes changes correspondingly. She didn’t really outline a process for reflection in her response.

During the interview Sandra also commented that she had analyzed video of her own teaching in the past when she was completing her undergrad and that she found it “pretty
revealing. She also stated that it gave her “a chance to see you the way your students see you.”

Finally, when Sandra was asked what she hoped to gain from the workshop she responded that she was hoping “that by doing this and participating in this process, it still keeps me very very in touch with the teaching process and the challenges and rewards of being an in-classroom teacher.”

Due to conflicts that arose during the workshop, Sandra was unable to finish the workshop and did not submit any reflections nor was she interviewed at the completion of the project.

Molly

Molly was a white female in her 13th year of teaching. She was an English teacher who is teaching at a secondary school. Molly obtained two Masters of Arts degrees.

In a preliminary interview conducted before the workshop, Molly was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was, “No. I don’t think that administrators are able to get an accurate picture of what goes on in the classroom because I simply think that they simply don’t time to come in and see what’s going on.” Molly was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, that she is “constantly reinventing.” She does this by reviewing essays and projects to think how the process could be improved.

During the interview Molly was asked if she had ever analyzed video of her own teaching in the past she had done some video recording for some college class work and that it provided some useful information. Finally, when Molly was asked what she hoped to gain from the workshop she stated;
I am hoping to gain some more insight on how I can improve myself. I think going through the process of watching myself teach, it has been two and a half years since I did that last video, so I am hoping that things have changed. Maybe I will catch something new and different this time that I need to improve on. I am really interested in being the best teacher I can be.

**Patricia**

Patricia was a white female in her 10th year of teaching. She was a social studies teacher who was teaching at a secondary school. Patricia has obtained her Masters of Arts degree plus an additional six credits.

In a preliminary interview conducted before the workshop, Patricia was asked if she thought her district’s current supervision and evaluation process improved her teaching. Her response was,

No, I do not think it improves my teaching because it is usually something that is done at the last minute as administrators are very busy and they have other things they need to take care of. It doesn’t seem like it is a very involved ongoing throughout the year. It is not done for ourselves, it is done for someone else.

Patricia was also asked what tools or processes she uses to reflect on her teaching. She responded by saying, that she looks at things at the end of the day and make notes about what needs to be changed and about what worked well.

During the interview Patricia was asked if she had ever analyzed video of her own teaching she said, “No. because I don’t want to see myself.” When asked why she agreed to be part of the study if she knew videotaping was part of the process. Patricia said that she had a “curiosity” and the fact that she didn’t have to show the videos to anyone else
prompted her to try it. Finally, when Patricia was asked what she hoped to gain from the workshop she responded “I want to be a better teacher...If this is going to make me more reflective about what I am doing then that is a good thing.”

**Findings Related to Research Questions**

**Data reduction process**

The data reduction process occurred in several stages to ensure accurate themes. The construction of the themes was established as a result of the data collected from twenty-eight individual interviews, two focus groups, and seventy-three documents. Two individuals, who are also current educators, helped to review data to ensure the data collection and theme generation was done so in non-biased manner. The use of a digital voice recorder allowed the researcher to secure the participant’s interview comments verbatim. These steps allowed for the researcher to protect against any researcher bias and to keep aligned with the integrity of the research study intent, to describe the experience of the individual’s not the researcher’s perceptions of the individual experience.

Each interview transcript was transcribed and returned to the participant for verification and editing of their responses. There was very little editing done to the transcripts by the participants. At the completion of the first interview, the researcher reviewed transcripts using a constant comparative analysis method to begin identifying common vocabulary and experiences as it related to expertise development. The researcher used Microsoft Excel to sort responses collected from the interviews, focus groups and documents. The researcher assigned codes or multiple codes to every piece of relevant information. The codes were used to sort the information to generate potential themes. To
confirm potential themes, the researcher selected two peer reviewers to confirm major themes to verify the findings.

During the focus group stage of the data collection process, questions were generated around the themes that were generated and participants were asked to confirm these themes. The focus groups allowed participants an opportunity to describe their individual journey and to discuss the impact the workshop had on their growth as teachers. As part of the focus group, participants were given a copy of the model designed by the researcher to offer input on the accuracy and limitations of the proposed model.

Each research question generated at least two findings. The following is a complete listing of each research question as well as the findings for each.

Research question one: To what extent did the analysis of a teacher’s own teaching, using a comprehensive framework, facilitate self-reflection, self-monitoring and self-modification?

The five findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

A1) Initially overwhelmed: Initially participants were overwhelmed using a comprehensive teaching framework.

A2) Increased awareness of expert teaching: Participants increased their awareness of expert teaching by using a comprehensive teaching framework as a reference point.

A3) Identification of strengths and weaknesses: Self-evaluation allowed participants to identify areas of need and also confirmed areas of strength in their teaching.
A4) Specificity within the Marzano framework: The Marzano Observational Protocol was regarded as being a more specific comprehensive teaching framework.

A5) Critical but non-judgmental: Comprehensive teaching framework allowed participants to be critical of teaching practices but non-judgmental of peers.

Research question two: To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-reflection, self-monitoring and self-modification? The two findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

B1) Analyzing video of participants own teaching with a focus increased the awareness of expert teaching while generating non-threatening and timely feedback.

B2) The Marzano Cohort identified specific elements of improvement whereas the Danielson Cohort identified more general areas of improvement.

Research question three: To what extent did the analysis of reflective peer observations facilitate self-reflection, self-monitoring and self-modification? The three findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

C1) The identification of a specific focus and process made reflective peer observations more meaningful

C2) Reflective peer observations created context for the descriptions found in the comprehensive teaching framework

C3) Reflective peer observations stimulated praxis
Research question four: Were the perceptions of teacher’s performance impacted by analysis of a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways? The six findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

D1) Combination of tools with a structured reflective process led to improved teaching and teacher growth.

D2) A very limited and specific focus supported teacher growth

D3) Commitment to continue the structured reflective process because it was perceived to improve teaching

D4) Participants improved their metacognition

D5) Participants modified and improved their teaching by utilizing the structured reflective process

D6) Written reflections allowed participants to synthesize and to create meaning from their experience

Research question five: Did using a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways? The two findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

E1) The structured reflective process impacted key components of deliberate practice

E2) The structured reflective process supports teacher growth and teacher evaluation
The following table delineates the five research questions, the corresponding findings, the number of participants who confirmed each finding and the total number of occurrences the finding was confirmed, the finding was confirmed, that the finding was recorded. As previously mentioned, primary themes were determined a key finding if at least half (7/13) of the participants or more than 75% of participants from one group (4/5 for “Danielson Cohort” or 6/8 for “Marzano Cohort”) reported it as part of their overall experience.
### Table 21

**Summary of Findings**

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<th>Finding based on interviews</th>
<th>Danielson Cohort References</th>
<th>Danielson Cohort Participant Average</th>
<th>Marzano Cohort References</th>
<th>Marzano Cohort Participant Average</th>
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<td>See Table 41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(E2) The structured process supports teacher growth:</td>
<td>5</td>
<td>1.00</td>
<td>14</td>
<td>1.75</td>
</tr>
</tbody>
</table>
Selection and Description of Site

Findings related to research question one: To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of one’s own teaching?

Participants were asked in both the interview and focus group how the use of a comprehensive teaching framework impacted their teaching. Through analysis it was discovered that the first time participants used a comprehensive teaching framework to complete a self-evaluation they felt overwhelmed. Each cohort used a different comprehensive teaching framework; the Danielson Cohort utilized the Danielson Framework for Teaching and the Marzano Cohort utilized the Marzano Observational Protocol. However, after the initial shock, all participants believed a comprehensive teaching framework increased their awareness of expert teaching and the framework became a reference point for their teaching. In addition, ten of the thirteen participants confirmed their perception that they were indeed doing a good job teaching (in specific areas) when using a comprehensive teaching framework to complete a self-evaluation. This was based on the idea that the teaching practices they analyzed on video were reflected within the framework.

Two of the more interesting findings were: 1) all eight participants from the Marzano Cohort who utilized the Marzano Observational Protocol consistently used the word “specific” or alluded to the idea of specificity to describe the framework whereas only one participant from the Danielson Cohort who utilized the Danielson Framework for Teaching did so, and 2) only two of the teachers from the Danielson Cohort named specific teaching strategies utilized when discussing the framework whereas all eight members from the Marzano Cohort named specific teaching strategies utilized when discussing the framework.
These five findings will be discussed to describe how individuals were impacted by using a comprehensive teaching framework during the study (each finding is identified by a letter and number along with a brief descriptor):

(A1) Initially overwhelmed: Initially participants were overwhelmed using a comprehensive teaching framework.

(A2) Increased awareness of expert teaching: Participants increased their awareness of expert teaching by using a comprehensive teaching framework as a reference point.

(A3) Identification of strengths and weaknesses: Self-evaluation allowed participants to identify areas of need and also confirmed areas of strength in their teaching.

(A4) Specificity within the Marzano framework: The Marzano Observational Protocol was regarded as being a more specific comprehensive teaching framework.

(A5) Critical but non-judgmental: The use of a comprehensive teaching framework allowed participants to be critical of teaching practices but non-judgmental of peers.

Finding (A1) Initially overwhelmed

Initially, participants were overwhelmed using a comprehensive teaching framework. Any comprehensive teaching framework that truly honors the complexity of teaching will need to encompass a full array and range of practices. This will lead to a large document which some teachers may find intimidating. Across both groups, respondents referred to the feeling of being overwhelmed and to initial shock at the complexity and sheer length of the
document. Sixty-nine percent of the participants (9/13) said they felt overwhelmed when they were asked to complete a self-evaluation utilizing a comprehensive teaching framework. Participants were asked to self-evaluate themselves in each element of their respective comprehensive teaching framework in order to identify two to three specific areas to focus on during the study. Many participants shared the same sentiments about the frameworks.

Karen said, “Like I said before it is a lot to intake. It is a bit overwhelming.” Nancy also said, “I can definitely say that initially I felt overwhelmed by looking at the framework because there is so much, so many demands, so many things within them.” Rachel also stated that “there was a lot to focus on and I didn’t have any direction where to look.” While sentiments of being overwhelmed were echoed throughout the groups, after the initial shock from the size of the frameworks wore off, participants began to start seeing the value of the frameworks. Karen said, the Danielson Framework for Teaching was overwhelming first because of the amount of pages but that it really made her “assess [her]self as a teacher.”

Similarly, Molly was moved from feeling overwhelmed to a better understanding of expert teaching. The large document helped to clarify the framework. When describing the Marzano Observational Protocol (MOP) Molly stated, “Oh my god, that is a lot of pages, a lot of pages. Really? Do I need to do all this stuff to be a good teacher?” However, she went on to say the framework provided a lot of clarification with its use of sub-topics which made the MOP make sense. This then made the MOP a very accessible document that was helpful to analyze teacher performance.

Patricia had very similar feelings as Molly when asked about her experience with MOP the first time she used it for a self-evaluation. Patricia stated that it was overwhelming and that it was a lot of information. Not only was the size of the document overwhelming
but the task of evaluating herself in each element was as well. The experience was also a bit uncomfortable because it caused her to reflect on her current teaching performance. Patricia said, “for a while there, [I rated myself as] applying and I was, “Oh my God!,” I have been teaching for ten years, I should be innovating on this kind of stuff. Then there are sections were like oh good. I am okay there.”

As teachers self-rated themselves using the frameworks, each identified areas of both weakness and strength. For some, such as Julie, it became enjoyable. When she first was introduced to MOP she thought it “was a lot” and that it seemed “extensive” but she also stated the framework allowed her to become more aware of areas of strength as well as areas that needed improvement. Julie finished by stating “the more I did it, the more I was excited to see where I was in each of the areas both good and bad.”

The following table displays the data reviewed delineated by the group in which the respondents participated. The Danielson Cohort refers to the participants who utilized the Danielson Framework for Teaching while the Marzano Cohort refers to the participants who utilized the Marzano Observational Protocol as the comprehensive teaching framework. Table 22 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 22

Finding from Research Question 1(A1): Participants Initially Felt Overwhelmed Using a Framework

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>5</td>
<td>1.00</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>5/8</td>
<td>62.5%</td>
<td>6</td>
<td>.75</td>
</tr>
<tr>
<td>Totals</td>
<td>9/13</td>
<td>69.2%</td>
<td>11</td>
<td>.85</td>
</tr>
</tbody>
</table>

The findings between the two cohorts were very similar in this instance. However, it may be worth emphasizing that only 69% of teachers (5/8) in the Marzano Cohort felt that the framework was overwhelming versus 80% of teachers (4/5) in the Danielson Cohort. Participants felt overwhelmed because of the length of the frameworks. Participants found the “list of demands” that encompasses expert teaching as delineated by each framework to be daunting. This was particularly true when they were asked to rate themselves in each of the skills and behaviors. The self-evaluation using a comprehensive teaching framework ultimately began the process of moving teachers out of their comfort zone and into the initial process of awareness of current performance. The following section will explain how teachers moved from overwhelmed to awareness of expert teaching.

**Finding (A2) Increased awareness of expert teaching**

Participants increased their awareness of expert teaching by using a comprehensive teaching framework as a reference point. As participants continued to use the frameworks, they talked more about how the framework made them aware of expert teaching and how it became a reference point for expert teaching. All 13 participants across both cohorts stated that the comprehensive teaching framework they utilized became a reference point for expert
teaching. Eva, a first year teacher said directly, “I needed a definition of how to teach and the framework [the Marzano Observational Protocol] defines every little part of how to be an effective teacher….it gives me a starting point and a definition [of expert teaching].”

However, even Paige who has 21 years of experience and is a Nationally Board Certified Teacher stated, “The [the Marzano Observational Protocol] … really allowed me to take a look at and step back and say, “You know what? This is what I want the kids to learn and this is how I have to go about it and this is going to be the best way for me to present it.”

This notion was affirmed by Molly, who stated that she liked the MOP because she “liked having a distinct definition of what I am looking for….The framework was very valuable for [giving distinct definitions]. It makes me want to be a better teacher.”

For others, such as Rachel the framework created awareness and curiosity about what constitutes expert teaching. “Because [the Marzano Observational Protocol] made me more… interested in the different areas and wanting me to learn more about it and get a little bit more in depth on the different framework areas.” While some participants didn’t specifically say the framework introduced them to a new way of teaching, they did say it shifted their thinking about teaching. This idea was expressed by Samantha, “I don't know if it [the Danielson Framework for Teaching] necessarily gave me good ideas. It definitely gave me a different thought process, a bit of a paradigm shift.” Samantha went on to say that her greatest take away was thinking about how using a framework could benefit her students by improving her teaching. It led her to ask the question, “So how can use the framework in a way that I can improve?” In this instance, the framework created awareness and caused the teacher to think about ways they could foster improvement for themselves and their students.
All of the participants at some point talked about how the comprehensive frameworks gave them a “rubric” for teaching that allowed them to self-assess their performance. This was summarized well by Karen who said, “I know what [expert teaching] looks like because the framework definitely identifies that for you.” Later Karen said the Danielson Framework for Teaching made her really analyze her teaching and ask herself if she needed to improve. “It really made me be real honest with myself because some areas you want to say I am good, I am proficient, I am good but in some areas I really have to say I am really not that good in this area.”

Karen then summarized her experience by stating, “So it [the Danielson Framework for Teaching] helped me be very reflective. It helped me identify what needed to be changed, what needed to be implemented, and it just helped me make a plan.” Trinity, also added that the DFT not only confirmed what she thought a good teacher should be doing but it also gave her a “very non-threatening and actually a very positive way because it is written in non-emotional terms” to evaluate teaching.

While some teachers stated the comprehensive teaching framework helped to create awareness and cause reflection, others said the comprehensive framework impacted their daily activities. Nancy stated the DFT was used as both a reference point and as a tool to build awareness in her everyday activities. She stated that the DFT helped to shape her lesson planning and presentation because she had a picture in her mind of how it all fit together. Nancy went on to say that now after her lessons she finds herself “rethinking within the framework of what I could do better for the next time.”

Overwhelming, participants talked about the usefulness of utilizing a comprehensive teaching framework. The sentiment of the participants was summarized the best by Sandra,
“I think my initial thought is I really, really, really wished that I had seen this [the Marzano Observational Protocol] ten years ago or something like this ten years ago.” Sandra said that while the current movement in education is to give students a clear picture of what teachers want them to know and a clear understanding of expectations, this practice is something that is not done for teachers. Sandra stated, “We still talk about good teaching all the time, but we don't make clear what we think that looks like. What is the difference between a good teacher and a mediocre teacher? A mediocre teacher and an excellent teacher?” For Sandra, the Marzano Observational Protocol was a useful tool that gave her a better understanding of what good teaching is. Sandra finished by saying, “So I think if I had seen this [the Marzano Observational Protocol] ten years ago, some of these things I would probably be a lot stronger at than I am now.”

The consensus among the participants was that comprehensive teaching frameworks were useful for building awareness about expectations for expert teaching and for giving teachers a reference point and description of expert teaching. One of the keys may have been the rubric format which allowed teachers to focus on specific elements that made the process more manageable. Eva stated that at first it seemed like too much information but when she had an opportunity to internalize the information she realized “that I didn't have to be doing all these things all the time or like this is just something to check myself against, then it seemed more manageable.” The ability to focus on particular elements allowed the participants to move from being overwhelmed to becoming more comfortable and believing that they could improve their teaching.

Both focus groups reported that their respective comprehensive teaching framework allowed them to see the big picture, created a common language, and helped to ensure that
teachers weren’t “getting stuck in a rut” because it helped to remind them of alternative possibilities. Each focus group also confirmed participants initially felt overwhelmed but, both frameworks honored the complexity of teaching which led to an increased awareness of expert teaching.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 23 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, of the finding and the average number of times a cohort participant referred to the finding (or Total Occurrences divided by participants in the cohort).

Table 23

*Finding from Research Question 1(A2): Participants Increased Their Awareness of Expert Teaching Using a Comprehensive Teaching Framework as a Reference Point*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100%</td>
<td>18</td>
<td>3.60</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100%</td>
<td>37</td>
<td>4.63</td>
</tr>
<tr>
<td>Totals</td>
<td>13/13</td>
<td>100%</td>
<td>55</td>
<td>4.23</td>
</tr>
</tbody>
</table>

This finding was virtually identical among both cohorts. In each cohort, (5/5 and 8/8) all participants stated their respective framework helped to increase awareness of expert teaching and the framework became a reference point for teaching. The average number of occurrences per participant in the Danielson Cohort was 3.60 whereas the average number of occurrences in the Marzano Cohort was 3.63. Responses indicate both frameworks were successful at creating a rubric that defined expert teaching. Participants agreed the
frameworks were a tool that could be used to improve their teaching by increasing their awareness of expert teaching and by clarifying expectations. Thus, the comprehensive teaching frameworks became a reference point from which to evaluate their current practices and a guide that increased participants’ awareness of expert teaching practices.

Finding (A3) Identification of strengths and weaknesses:

Self-evaluation allowed participants to identify areas of need and also confirmed areas of strength in their teaching. One of the important aspects of the study was allowing participants to self-identify their areas of strength and weakness. This honored the research on adult learning theory that places adults in control of their learning. Teachers spent the entire workshop working on improving the areas identified in this self-evaluation. When teachers utilized a comprehensive teaching framework to complete a self-evaluation, it not only allowed teachers to identify their areas of concern and their focus for the remainder of the study, it also allowed them to identify areas in which they excelled. Identifying areas of strength was one of the main factors that allowed participants to move from feeling overwhelmed to believing that a comprehensive teaching framework to improve their teaching was manageable. The identification of areas of strength also proved to be a motivator and source of pride for participants. Julie stated that using the MOP made her “happy and proud” of the areas she rated herself “applying”. Julie stated that she did not rate herself as innovating in any of the areas because to her that, “was over the top.” Julie also stated, “It was really great for me to see the areas that I am at beginning or developing because it really will help me to focus my skills of teaching and that will make me a better teacher.” Julie used the self-evaluation as both a source of confirmation of what she was
Nancy from the Danielson Cohort had a similar experience but she emphasized how the framework helped her to better understand what an expert teacher consists of and also the DFT gave her a focus that changed her perspective about teaching. Nancy stated, “knowing what is specifically in that framework [along] with my particular goal I want to focus on, has changed how I see my teaching.” Rachel had a similar experience. She stated that using the MOP to complete her self-evaluation allowed her a way to identify “what to be working on.” Before using MOP, Rachel never felt that she had a way to pinpoint how to work on areas of her teaching because previous frameworks had been “so broad.” Here Rachel refers to the self-evaluation as a way to identify her focus. In doing so, she mentioned how the specificity of the MOP was helpful.

This response was echoed by Molly, who not only talked about increasing her awareness but also how the use of a comprehensive teaching framework can be used to specifically delineate what expert teaching is. Molly liked using the MOP because “the framework gives a specific definition to what good teaching looks like and things that you can work on to be a better teacher. I think that is the power of the framework.” Molly also stated that the framework, “breaks those things down” which make up a good teacher and that the framework created a “visual” representation made up of “little chunks” that defined good teaching. Again, in Molly’s experience, the key was the specificity that allowed her to “see” what expert teaching encapsulated.

Prior to participating in this study, participants were seeking useable feedback that could impact their teaching. Karen from the DFT group stated, “I felt good at what I do just
because I have been told by multiple people, that I do a good job, but as I mentioned earlier, I
never got any feedback on what am I doing so great. How can I make myself better?” The
self-evaluation process allowed teachers to start forming an idea of what those next steps
could be.

Teachers also mentioned that their initial self-evaluation helped them to process their
teaching experiences on a daily basis. Paige stated while she had reflected about her teaching in the
past, the MOP became a tool that she could use to check herself throughout the day. Paige
stated, “going back to [the MOP] is extremely helpful because of the rubric” it allowed her to
focus on areas to improve because the rubric format provided feedback on specific skills.

Teachers viewed the comprehensive frameworks as rubrics that gave them a reference
point. Completing a self-evaluation with the rubric was the first step in building that
awareness of expert teaching. The self-evaluation served as not only a process to identify
areas of need, but also as a way to clarify expectations and to confirm the perceptions of
good teaching. The Danielson focus group also stated that using a framework as a self-
evaluation tool helped to “push [them] in a direction where we challenge ourselves more than
just accepting what we are good at and trying to improve on what we are not good at.”

The following table displays the data delineated by the group in which the
respondents participated. Table 24 contains the number of participants in which this finding
was confirmed, the percentage of participants in which the finding was confirmed, the total
number of occurrences the finding was confirmed, and the average number of times a cohort
participant referred to the finding (or total occurrences divided by participants in the cohort).
Self-evaluation helped teachers to identify not only areas of need but also confirmed areas of
strength in their teaching
Table 24

*Finding from Research Question 1(A3): Self-Evaluation Allowed Participants to Identify Areas of Need and Also Confirmed Areas Of Strength In Their Teaching*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>5</td>
<td>1.00</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>6/8</td>
<td>75.0%</td>
<td>8</td>
<td>1.00</td>
</tr>
<tr>
<td>Totals</td>
<td>10/13</td>
<td>76.9%</td>
<td>13</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Both frameworks had very similar results in regards to confirming teaching practices. Ten of the thirteen participants stated analyzing the video confirmed their perception that they were indeed doing a good job teaching (in specific areas) when using the framework to complete a self-evaluation. Because the teaching practices captured on video were reflected within their respective framework (at the proficient / applying or above levels) participants stated this confirmed they were doing a good job. The Danielson Cohort had 80% (4/5) of participants stated the self-evaluation using a comprehensive framework helped to confirm they were doing a good job in specific areas, while 75% (6/8) of participants from the Marzano Cohort made similar statements. Both groups had an average response of 1.00 per participant. The ability to confirm success within their own teaching allowed teachers to gain confidence in their teaching. This was one of the main factors that allowed teachers to move from feeling overwhelmed to believing that gaining expertise in teaching was an obtainable goal.

**Finding (A4) Specificity within the Marzano framework**

The Marzano Observational Protocol was regarded as being more specific. One of the more intriguing findings was the Marzano Cohort utilizing the Marzano Observational
Protocol constantly used the word “specific” or alluded to being more specific to describe the framework and also referenced individual teaching strategies utilized whereas Danielson Cohort utilizing the Danielson Framework for Teaching did not. All eight participants who were in the group that utilizing the Marzano Observational Protocol used the word “specific” or a slight variation on twenty different occasions to describe it. For example, Patricia said, “I liked that it [the Marzano Observational Protocol] was very specific, that I could choose sub-set goals in a sense from a larger goal and examples of it.” Sandra also shares this belief, “I think that is where the framework really comes in handy because it is so specific.” Rachel added that these specifics helped link teaching practices to student behaviors explaining that:

> It definitely gave more of an understanding as far as what is expected and what needs to be looked at being a teacher. Because before you are kind of thrown in, okay you are good at this and this and this, and this is what you need to work on, whereas it [the Marzano Observational Protocol] was more specific as to what I need to be doing for the children, what I need to be receiving from the kids.

The teachers appreciated the fact that the Marzano Observational Protocol included look-fors for both teachers and students.

When describing the framework, Molly said, “Again, I liked the framework because I liked having that kind of distinct definition in what I am looking for.” Here Molly is also referencing that the MOP offered specific look-fors for teachers and student behaviors. Vanessa summarized it best by saying, “it wasn’t the overarching idea that I took from the framework, it was the bullet point, breaking down this is what they do and if you are effective this is what you do, XYZ. These are the things to look out for and again make those small shifts.”
The school district where the study was completed officially uses the Danielson Framework for Teaching for formal evaluation, which allowed some teachers to compare both frameworks because they have had previous experience with the Danielson Framework for Teaching. For example, Paige talked about MOP relative to other frameworks “I found it [The Marzano Observational Protocol] extremely helpful because it was concise and a little bit more specific than what we had been using [The Danielson Framework for Teaching].” Others in the group who used the Marzano Observational Protocol had similar comments such as Patricia:

I keep having the Danielson model in my head constantly so when I compared the two of those it is broad (Danielson Framework for Teaching) versus specific (Marzano Observational Protocol) in my eyes. That is just huge. I found it very helpful…..Here are some things that you can look at. Here are all the things that are involved in education and teaching. Choose a few. It was just so much easier.

Molly also commented on comparing both frameworks, “I think [MOP] is a better framework than Danielson…because [MOP] is much more teacher assessable…because it is more defined.”

The following table displays the data reviewed, delineated by the group in which the respondents participated. Table 25 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 25

Finding from Research Question 1 (A4): Specificity In Regards to the Respective Framework

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>1/5</td>
<td>20.0%</td>
<td>4</td>
<td>.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100%</td>
<td>22</td>
<td>2.75</td>
</tr>
<tr>
<td>Totals</td>
<td>9/13</td>
<td>69.2%</td>
<td>26</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Whereas only 20% (1/5) of participants from the Danielson group either used the word “specific” or alluded to the DFT being specific on one occasions, 100% (8/8) or participants from the Marzano group used the word “specific” or alluded to the MOP being specific. This is may be an important finding because for deliberate practice to be effective in developing expertise, very specific skills must be developed. Specificity is an important component in developing expertise because expertise is developed by focusing on and improving very specific skills.

**Finding (A5) Critical but non-judgmental**

The use of a comprehensive teaching framework allowed participants to be critical of teaching practices but non-judgmental of peers. Another potential finding was the use of a comprehensive teaching framework allowed participants to be critical but non-judgmental about teaching practices and strategies of other teachers. This is important because it allowed participants to separate the individual teacher from the practice when they were conducting a peer observation. Participants were no longer evaluating teachers holistically as good or poor teachers but as individuals who were either proficient or needed improvement in specific areas. Participants stated this was possible because the focus was on
the specific skill or strategy and not the teacher. However, because it was only stated by four participants (two in each group), non-judgmental towards other teachers is not stated as a major finding but it is worthy of being discussed because of the impact that it had on the participants who mentioned it. Although only four individual participants stated a comprehensive teaching framework allowed them to be non-judgmental about teaching practices and strategies of other teachers both focus groups confirmed that the frameworks did help to remove bias from observations and analysis of others’ teaching.

Trinity from the Danielson Cohort referred to the framework being non-judgmental on multiple occasions. Sandra from the Marzano Cohort said, “The framework changed it from; Do I think this person is doing a good job or do I think this teacher is an effective teacher? To, regardless of how effective or ineffective they might be overall, what are they doing that I can take away from it?” The emphasis was on the specific strategies being observed and how they could be adapted to the observer’s own teaching.

Also, two members from the Danielson Cohort had similar experiences. Trinity said that the Danielson Framework for Teaching helped her “not be judgmental; it helped me take more away from it that I could apply to my own teaching.” Trinity stated that if teachers observe other teachers who teach different classes or have a different style, teachers may complete the observation thinking, “I am not sure what I am going to get out of this, but if you break it down into those pieces guided by the framework, you can say … [the class may not] be similar to mine but I could see that this person did a good job.”

Karen, from the Danielson Cohort, also felt that it helped her to not be judgmental. “Basically this is what I am looking for. So either they doing it or they are not….it helped me keep my bias or my judgment, my opinion out of it and just strictly focus on what the
rubric says, what I am looking for.” The ability to see teaching through a non-bias lens could be very beneficial by creating actionable feedback and by allowing people to be more open minded about accepting and applying new teaching practices otherwise known as praxis.

Table 26

Finding from Research Question 1(A5): Comprehensive Teaching Framework Allowed Participants to be Critical of Teaching Practices But Non-Judgmental of Peers

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
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<td>40.0%</td>
<td>12</td>
<td>2.40</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>2/8</td>
<td>25.0%</td>
<td>7</td>
<td>1.40</td>
</tr>
<tr>
<td>Totals</td>
<td>4/13</td>
<td>30.7%</td>
<td>17</td>
<td>1.30</td>
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</tbody>
</table>

Summary of themes related to research question one

Research Question one asked, “To what extent did utilizing a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of one’s own teaching?” The researcher sought to understand how the introduction and utilization of a comprehensive teaching framework impacted participants. Through interviews and focus groups it was discovered that the utilization of a comprehensive teaching framework led to increased awareness of teacher expertise which impacted self-management and self-monitoring. While initially teachers were overwhelmed when introduced to the framework, each framework became a guide and reference point for teachers in their respective cohort. The comprehensive teaching frameworks allowed teachers to better understand indicators or success, articulate goals, and consider options (components of self-managing). This in turn increased the ability and likelihood that teachers would compare their current condition with
their intended outcome, and engage in attentive listening and observing to improve their metacognition (components of self-monitoring).

Also, the immersion into the frameworks allowed teachers to fully understand the expectations and components of the framework which led to better implementation of the concepts associated with the framework. Teachers were able to generate feedback on both their strengths and weaknesses. The identification of weaknesses helped to focus the participants’ improvement efforts and the identification of strengths helped to motivate participants and make the task of developing teacher expertise more manageable.

The only discernible differences between the groups’ responses for the findings of research question one came in the form of specificity. The Marzano Cohort repeatedly mentioned the concept of specificity when referring to the MOP. The Marzano Cohort was also much more likely to mention specific teaching strategies when discussing the framework. Because, according to Ericsson (1993), the development of expertise is linked to deliberate practice, the differences in specificity between the two frameworks may prove to be a very significant finding. Deliberate practice entails the refined repetition of very specific skills. Without specificity, obtaining expertise may be either more difficult or improbable.

**Findings related to research question two: To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification?**

Across both groups, respondents discussed how analyzing a video of their own teaching in conjunction with a comprehensive teaching framework impacted their perception of their own teaching. While the video allowed participants to see themselves from a different perspective and raise their awareness of both teaching and student behaviors, the
use of a comprehensive teaching framework as a reference point made the process more meaningful. In this instance, perspective was defined as how teachers were viewed by others. Through analysis it was discovered that when participants analyzed a video of their own teaching they became aware of areas that needed improvement as well as areas in which they excelled. The video also helped to generate timely, non-threatening feedback for teachers which gave participants an opportunity to see themselves from the perspective of a student or observer. Analyzing the video allowed participants to better understand how their students perceived them in the classroom. Furthermore, when the video analysis was combined with a comprehensive teaching framework it helped to guide the participants’ analysis which led to critical evaluation of their own teaching practices.

Two other factors that impacted the process were: 1) teachers were asked to focus on only two or three specific elements from the framework, and 2) teachers were only asked to analyze 15-20 minutes of a video recording of their own teaching. Both of these components helped to make the process more manageable for teachers while still allowing for the process to create meaningful feedback.

These two findings will be discussed to describe how participants felt the analysis of their own teaching via video recording in conjunction with a comprehensive teaching framework impacted their teaching. The two findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

(B1) Focus impacted video analysis: Analyzing video of participant’s own teaching with a focus on a specific element from a comprehensive teaching framework increased the awareness of expert teaching while generating non-threatening and timely feedback.
Specific versus general: The Marzano Cohort identified specific elements of improvement whereas the Danielson Cohort identified more general areas of improvement

**Finding (B1) Focus impacted video analysis**

Analyzing video of participant’s own teaching, with a focus on a specific element from a comprehensive teaching framework, increased the awareness of expert teaching while generating non-threatening and timely feedback. Through analysis of video of their own teaching participants were able to gain perspective about their teaching. Tiffany discussed the importance of gaining proper perspective when she stated that using a video recording along with a framework for teaching “is an excellent tool for all teachers.” Tiffany went on to say that, “unless you videotape yourself you really don't completely understand what you really look like in front of the students. It is really an eye opening experience.” Finally, she finished by saying video recording is “very rewarding to see what you are good at and what you need to improve.”

Vanessa also stated that analyzing the video “had biggest impact on my perception of my teaching because it let me see where I could use parts of things that I had either abandoned or decided not to try anymore instead of it being am I doing that or not.” Rachel also stated analyzing video of her own teaching in conjunction with a framework had the biggest impact on her perception of teaching. The video allowed Rachel to “really see yourself and really go from there.” Rachel also said that the video recording allowed her to have something to “bounce the framework off of.” Teachers became increasing aware of how they are viewed by students in their classrooms. In very simple terms, Tiffany said that the video offered “a reality check” for her teaching.”
Some teachers became aware of simple aspects of their teaching during the analysis of their video. For example, Tiffany stated, “I found out that I was really hard to follow. Changing directions quickly in class and I think that it made me more aware of not doing that and how difficult that type of teaching style is for my diverse learners.” Samantha also had a similar experience. “The video doesn't lie. So when you tape yourself and then you go back and you think this is what I wanted to do and it just didn't happen. That is eye opening.” Thus, teachers became more aware of the perspective students had of their teaching.

Trinity stated how helpful it was seeing herself on video to locate areas that needed improvement. “So I think that would help seeing yourself as the kids see you and hear you and I think most people would say oh I better work on that.” Trinity also went on to make the comparison of watching yourself teach with the analogy of singing in the shower. You know in the shower you think you sing so good. So, you like your own vision of yourself. It is kind of what you want to see and want to hear. When you see it on tape, it really brings it to light because I think we are all well meaning, most people are. We have this rose colored or at least I do vision of how I sound, how I am teaching, how I am getting my point across and until you really see yourself, I think it really brings a lot to light. A little reality. After I used the framework and had some guidelines of how to really look at myself, it made it much easier, a little more impersonal but in a good way.

Because of the video analysis, Karen became more aware of students who were off task. The analysis of the video recordings allowed her to see the class from her students perspective which prompted her to find areas to improve. “So, it [the video recording] just
kind of opened my eyes to different things from video and also just what I chose to focus on from the framework.” Not only were teachers made aware of areas of need, they also had some of their perceptions confirmed. Molly stated that “I do think it [the video recording] heightened my awareness. It reaffirmed what I kind of already knew in the back of my head, the areas that I really need to work on more, that I need to focus on.” This is also useful information because it allowed teachers to focus in on areas of improvement based on the framework.

Nancy, felt that the process allowed her to become more aware of what she did well and what needed to be improved. As noted here by, Eva, while the initial self-evaluation was based on perception, watching the video helped participants to more accurately gauge their level of performance. Eva realized that “if I am not completely self-aware of where I fall on the framework, then I can't accurately decide where I need the most improvement.” The value of using the framework in conjunction with the video was to align the teacher’s perception of self and reality. Although the tool used was video analysis of their own teaching, it was the combination with a comprehensive teaching framework that helped to give teachers perspective on what expert teaching looks like and also offered a context on which to evaluate their own teaching.

Another aspect that was beneficial was the process of picking specific elements of the framework to analyze. According to Molly, the process of selecting one or two specific elements from the framework was good because she blocked out everything that wasn't relevant to what she was looking for. Molly said, “it forced me to look at that one thing whether it was pretty or not pretty. I couldn't turn away and think but I am doing really well in this area, so maybe I will just look at this area.” Molly also went on to say, “It really
makes you come to terms with what you truly need to improve on or what you are really
good at.” Trinity made the statement that the framework and instructions to focus on only
two or three specific elements of the framework allowed her to put the video into perspective
and made it a productive experience. This sentiment was shared by Patricia who stated
focusing on two to three specific elements made it easier to start the analysis and provide a
specific purpose for watching the video. Patricia stated, “I knew what I was looking for. Was
it there? Was it not?” Patricia also stated that the limited time requirement helped to make
the process easier. Teachers were asked to only record 15-20 minute segments of their class.
This allowed the process to be more sustainable and practical for teachers. Again, the video
and framework gave teachers tools to become more aware of areas in their teaching that
could be improved.

Rachel stated that the process of using the framework and focusing on two or three
specific elements gave her more focus and direction. Rachel stated that “Although I could be
picking apart 10,000 different things in the video, it gave me a specific” focus to check both
herself and the students. Without that specific focus, “I would just be looking blindly at a
video and picking apart 10,000 things that I would want to change which I wouldn’t be able
to do all at one time.” Likewise, Karen had a similar experience;

Watching myself on the videotape with that specific focus really opened my eyes up
to different ways that you can do things and different ways you can help yourself
become a better instructor, a better educator versus waiting for the principal come in
to give you feedback.

In this case, not only did the focus help to make the process more manageable but it also
helped to make teachers more aware of how they could improve in certain areas.
The use of a framework in conjunction with video analysis allowed teachers to create actionable feedback about their performance. Trinity said, “It is hard to give yourself feedback. I think that video allowed me to give myself better feedback.” This led to teachers being more analytical of their own teaching. Trinity talked about how she viewed the video multiple times looking for something different each time. The viewings allowed her to see where she needed improvement and where she could make changes to her teaching. Again, the ability to combine video analysis with a comprehensive teaching framework allowed teachers to become more aware of expert teaching and how they were performing in very specific elements of the framework.

Because the video allowed teachers to see themselves in a new context, it provided a medium for them to truly analyze their teaching. The video helped participants to focus on the process of teaching and not just the content. Tiffany felt that almost all of her current collaboration and professional development has been focused on content. She talked about the usefulness of having the ability to assess the process of delivering the content. Being able to “see” herself in the act of teaching was very beneficial for her. Thus, the video analysis allowed teachers to become more aware of how they were delivering content.

However, it is important to remember that the video analysis was tied to a framework to help teachers find a focus. As previously discussed, teachers were overwhelmed when they first began using a framework to self-evaluate their own teaching. Nancy stated the framework gave her a better focus while analyzing the video, which then created the ability for her to develop feedback which impacted her teaching. Nancy stated that because of the specific focus on one or two behaviors she was able to block out “all the other distractions that were happening in the classroom” which allowed her “to really reflect and then give
feedback to [her]self.” This idea was seconded by Rachel who stated she, “will definitely continue” videotaping herself and use the framework to analyze her own teaching. She also stated that because of the video recording she is more “self-reflective” and that she hoped to “continue to grow as a teacher by focusing on different areas within the framework.”

The teachers become more comfortable and efficient with analyzing videos of their own teaching the more they engaged in the process. This was because of the focus that the frameworks offered. Trinity stated she was better able “to analyze [her teaching] using the rubric” and she “was able to hone in on certain things I wanted to work on and see if I improved just by recognizing it and looking for it.”

Nancy offered an insightful analysis on the process of analyzing video. Nancy progressed from being uncomfortable with being video recorded to becoming more aware of her performance to finally feeling empowered by the process because she saw the changes in later videos and knew that she held the power to make those changes. Nancy stated that until she saw herself on video she wasn’t completely aware of what she needed to change. Watching the video, even though it could be uncomfortable at times, allowed her to make significant improvements in her teaching.

Nancy went on to say that she was able, “to give [herself] a pat on the back for [what she did well].” Ultimately, however she was able to see what needed improvement and by her third video she “was able to see how I was already making little slight changes….I will be comfortable seeing things I don't like because I know I can do something about it now. So I feel I have more power.” Nancy’s increased awareness helped to lead her to changes in her teaching. Sandra also talked about how the process took the guesswork out of her performance and how her awareness became more concrete with help from the rubric. Nancy
finished by saying, “It was a good process and it was something I had been looking to do for awhile and just maybe not sure how to go about it.”

The importance of selecting a focus was summarized well by Rachel who said the framework allowed her:

To be able to pick just one thing in that video to look at, okay am I doing this? Am I doing that? When you really see yourself, that is when you can really correct yourself verses having just the framework but not being able to know, okay am I actually doing that? So it had a direct impact [on improving my teaching].

Again, Rachel underscored the importance of having proper perspective. When teachers were able to gain better perspective, it led to the development of feedback that impacted their teaching. Eva was able to articulate how important the combination of the video analysis and framework was to providing feedback. Eva stated that she learned a lot about her teaching because she compared the video findings to the teaching framework. By looking at very specific elements of the framework, Eva noticed that she was doing well with transitions but through the use of the framework she was able to identify areas where she could improve specifically with transitions. The MOP gave Eva a focus that allowed her to look for specific things “to really see what was going well and what I could improve upon.” Once more, Eva’s comments show the importance that the framework had on focusing the efforts for the teachers. When teachers were able to hone in on a few very specific elements of the rubric, it allowed them to focus on improving those areas.

Finally, Sandra stated how powerful the combination of the video analysis and MOP is. Sandra stated that “without the framework, the videotaping would have been less useful because I wouldn't have known how to break it down.” Sandra later went on to say, “I keep
coming back to is just how powerful a framework that specific really is because there are a lot of frameworks out there but not all of them give you the details that the Marzano one does.”

Again the combination of video analysis if coupled with very specific elements of a comprehensive teaching framework allowed teachers to change their teaching. Teachers talked about the progress and changes that the combination of video and a framework led to. Julie discussed how the process led to progress. “Picking my focus and then watching myself and how I did it and watching my development throughout the videos. Even just being so much more aware of it at the end of the year that I was doing it was very helpful.” Karen also said the framework and video analysis “go hand and hand with each other.” The changes Karen was able to make stemmed from what she saw on her video and also what she chose to focus on within the framework.

The whole process was summarized succinctly by Trinity, “By watching myself and paying attention to what I need to work on, then making a plan and setting that forth and then reassessing and how am I doing on it.” This is an ongoing process that allows teachers to identify areas of improvement, setting a course of action and reevaluating their success on a continual basis.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 27 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 27

Finding from Research Question 2(B1): Analyzing Video of Participants’ Own Teaching
Increased the Awareness of Expert Teaching While Generating Non-Threatening and Timely Feedback

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100.0%</td>
<td>15</td>
<td>3.00</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100.0%</td>
<td>27</td>
<td>3.38</td>
</tr>
<tr>
<td>Totals</td>
<td>13/13</td>
<td>100.00%</td>
<td>42</td>
<td>3.23</td>
</tr>
</tbody>
</table>

The findings between the cohorts were very similar. All teachers were able to generate useable feedback that allowed them to increase their awareness of expert teaching as defined by their respective comprehensive teaching framework. Also, all of the participants were able to obtain feedback that allowed them to address an area that they identified as a concern. During interviews participants mentioned an average of approximately three separate instances (3.00 for the Danielson Cohort and 3.28 for the Marzano Cohort) in which they were able to obtain timely feedback. Because the feedback was self-generated it was not considered to be threatening. While each participant found the analysis a worthwhile experience that provided useful feedback about their current teaching performance, the quality of the feedback in each cohort may have differed. The feedback garnered from the Marzano Cohort may have been higher quality based on specificity. This hypothesis will be analyzed in the next section. According to Ericsson (1996) and Ericsson et al., (1993) one of the primary components of obtaining expertise is the need for specific feedback. More specific feedback may increase the likelihood of teachers developing expertise and improving as teachers.
Finding (B2) Specific versus general

The cohort utilizing the Marzano Observational Protocol identified specific areas of improvement whereas the cohort utilizing the Danielson Framework for Teaching identified more general areas of improvement. A key finding was teachers were able to critically evaluate their own teaching by analyzing their videos of their own teaching. Teachers were able to identify broad topics as well as very specific strategies to target for improvement. There were differences within both groups in this finding. The Danielson Cohort discussed more general areas whereas the Marzano Cohort discussed very specific strategies more often within their analysis.

At the end of the workshop, participants were asked to identify one or two areas in which they would like to improve their teaching. The Danielson Cohort listed the following areas: higher level questioning, transition time, instructional grouping, pacing, assessment all of which are general in nature. The Marzano Cohort generated a list which was much more specific. The Marzano Cohort listed the following: student driven formal assessment, helping students interact with new information, communicating learning goals, celebrating student success, summarizing critical information while connecting it to the learning target, better at connecting prior information and divide new information into digestible bites.
Table 28

Summary of Areas Identified to Improve Teaching

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher level questioning</td>
<td>Summarizing critical information while connecting it to the learning target</td>
</tr>
<tr>
<td>Transition time</td>
<td>Helping students interact with new information</td>
</tr>
<tr>
<td>Instructional grouping</td>
<td>Communication learning goals</td>
</tr>
<tr>
<td>Pacing</td>
<td>Celebrating student success</td>
</tr>
<tr>
<td>Assessment</td>
<td>Student driven formal assessment</td>
</tr>
<tr>
<td></td>
<td>Better at connecting prior information</td>
</tr>
<tr>
<td></td>
<td>Divide new information into digestible bites</td>
</tr>
<tr>
<td></td>
<td>Previewing content with specific preview questions</td>
</tr>
</tbody>
</table>

Whereas these examples show that the process of analyzing video in combination with a comprehensive framework generated useable feedback, the Marzano Cohort was much more specific in their identification of areas of improvement. In each instance teachers in the Marzano Cohort generated their own feedback to self-correct or to improve teaching on very specific strategies or behaviors. For example, Molly analyzed the level of engagement and started to ask herself questions about her own practice.

As I was watching the videos and looking for the student engagement, I was thinking; What do I need to do here? What is not going right? What used to work but doesn't work anymore? Because I don't think I would have stuck with something for so many years if it continually didn't work, so what has changed. Have I changed? Have the kids changed? What do I need to do?
Patricia was also able to generate self-feedback that was about very specific behaviors in her classroom. Patricia shared how she focused on presenting new information to students. She asked herself, “How was I previewing new content? Was I using preview questions before reading?” Later Patricia stated, “as a result of watching that video, I learned that I need to stop and slow down and build this into a daily lesson of how to go about previewing new content, how to stop and chunk content into digestible bites.”

In addition, Patricia said analyzing video recordings forced her to see if her actual practice matched her perception of her own teaching. It also caused her to ask the questions, “Am I doing what I want to be doing? What do I need to change...I can really see how I need to change if I need to change.”

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 29 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 29

*Finding from Research Question 2(B2): Specific Teaching Behaviors Targeted for Improvement*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>1/5</td>
<td>20.0%</td>
<td>3</td>
<td>.60</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>6/8</td>
<td>75.0%</td>
<td>13</td>
<td>2.16</td>
</tr>
<tr>
<td>Totals</td>
<td>7/13</td>
<td>53.8%</td>
<td>16</td>
<td>1.23</td>
</tr>
</tbody>
</table>
The findings between the cohorts are noteworthy in this area. When teachers were asked to identify areas to target for improvement only one participant (20%) from the Danielson Cohort identified a specific teaching behavior. However, in the Marzano Cohort, six participants (75%) identified very specific teaching behaviors which to improve. It could be argued that attempting to improve student driven formative assessment (Marzano Cohort example) is a more manageable and measureable goal than simply improving assessment (Danielson Cohort example). This is because the goal is much more specific and gives teachers a clearer and succinct target. The Marzano Observational Protocol gives teachers a very specific skill or outcome to assess versus a general area. More specific goals are easier to assess and monitor. However, all participants from both cohorts found the feedback worthwhile. The belief of the researcher is that the more specific feedback would translate into better gains by teachers in terms of performance. This claim is based on the belief that feedback must accompany specific tasks that are designed to address specific needs in order to obtain expertise according to Ericsson (1996) and Ericsson et al., (1993).

**Summary of themes related to research question two**

Research Question two asked, “To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification?” The researcher sought to understand how analyzing video recordings of one’s own teaching in combination a comprehensive teaching framework impacted participants. Through interviews and focus groups the data lead the researcher to conclude that by analyzing video recordings their own teaching teachers were able to generate timely and non-threatening feedback that increased their awareness of expert teaching. By comparing their video to expectations, as delineated by their respective comprehensive
teaching framework, participants were able to generate feedback allowing them to address areas of concern within their own teaching. An important component emphasized by the cohorts was the specific focus within the process. Participants were asked to focus on two or three very specific elements or behaviors from their respective framework.

Both cohorts were similar in their responses in terms of generating feedback. However, one of the major differences within the feedback generated was that the Marzano Cohort identified specific elements and behaviors to target for improvement whereas the Danielson Cohort identified more general areas of improvement. This finding is similar to the finding from research question one in which the Marzano Cohort was much more likely to mention specific teaching strategies when discussing the framework. Again, the result from this implication is similar to the finding from research question one. Because, according to Ericsson (1993), the development of expertise is linked to deliberate practice, so this may prove to be a very important finding. Deliberate practice entails the refined repetition of very specific skills. Without specificity, obtaining expertise may be either more difficult or improbable.

**Findings related to research question three: To what extent did the analysis of reflective peer observations, facilitate self-management, self-monitoring and self-modification?**

Participants were asked in their interview and focus group how the analysis of reflective peer observations in conjunction with a comprehensive teaching framework impacted their teaching. The reflective peer observations allowed participants an opportunity to observe their peers. Through analysis it was discovered that a clear and focused process allowed participants to garner meaningful information. The reflective peer observations also
allowed participants to place their respective comprehensive teaching framework in context. They were able to see real life applications of the elements described within the comprehensive teaching frameworks which helped to stimulate praxis. Teachers were able to either transfer or modify what they observed in others’ classrooms into their own classrooms.

These three findings will be discussed to describe how participants felt the analysis of reflective peer observations in conjunction with a comprehensive teaching framework impacted their teaching. The three findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

(C1) Focus impacted peer observations: The identification of a specific focus and process made reflective peer observations more meaningful

(C2) Peer observations created context: Reflective peer observations created context for the descriptions found in the comprehensive teaching framework

(C3) Praxis stimulated: Reflective peer observations stimulated praxis

Finding (C1) Focus impacted peer observation

The identification of a specific focus and process made reflective peer observations more meaningful. Very similar to the responses involving video analysis, respondents in both groups discussed how observing peers in a reflective peer observation in conjunction with a framework impacted their perception of their own teaching. While the reflective peer observations raised the observers’ awareness of expert teaching, confirmed some of their own practices, and offered an opportunity to witness different practices and approaches to teaching in person, the use of the framework as a reference point made the process more meaningful. Two other factors impacting the process were: 1) participants were asked to focus on only two or three specific elements from the framework; and 2) participants were
only asked to visit a room for 15-20 minutes of a class period. Both of these components helped to make the process more manageable for participants while still allowing for the process to create meaningful feedback.

Ideally, participants would have focused on improving one specific strategy or element during the study. However, because teaching and timelines can be unpredictable and part of teaching is based on reacting to the needs of the students, participants were asked to identify two or three strategies or behaviors that they could focus on for improvement. This helped ensure that participants could schedule an observation of a peer and finish the observation with information and data that related to one of the participants’ areas of focus. If the participants had identified only one area of focus, there was a greater chance that the participants would have conducted an observation that resulted in obtaining information that was not applicable to their area of focus. Having alternative areas of focus allowed participants the flexibility to change the emphasis of their visit so that they could obtain useful and meaningful information that was related to one of the their areas of focus.

Having a focus of two or three elements contained within their respective comprehensive teaching framework positively impacted the experience of the participants. Rachel stated that, “by having that clear direction and what needs to be seen or heard from the kids, it really helped instead of being blind.” Furthermore, Karen discussed how having a focus impacted her experience. She modified her approach after her initial observation to ensure that she could make the observations meaningful. In her first observation, she only went in with one area of focus. When it became apparent that she was not going to be able to observe her target behavior during that visit, it made it difficult “to focus on other things because I really didn't know what I was looking for.” In subsequent visits, Karen had three
different elements from the Danielson Framework for Teaching that she could potentially focus on. Karen stated, “When I went with that mindset with having limited but multiple things to look for, it made the observation go easier…it really helped drive the focus of what I needed to observe.”

Tiffany also had a similar response. To her, having a focus allowed her to treat the peer observation and video analysis as a comparison model. Tiffany stated that, “Setting a focus before you go into the peer observation I think was key. Otherwise you are just kind of in there and you are really sure what you are looking at. You are looking at everything but seeing nothing.” Tiffany said, because participants were asked to focus on specific areas to improve on, the video and peer observation became a “comparison model”. Tiffany was able to compare what she had seen in her own video to what she was observing in the classroom. This is an important concept that will be discussed in more detail in the next finding.

During the interview, Patricia realized the impact of having a specific focus during the peer observations.

I have done a lot of peer observations so this didn't make it feel like it was that much different except for knowing that these are the specific things that I want to see. I take it back, there is a big difference. I am thinking what I would have done at peer observations in the past for evaluation. There wasn't a specific thing to look for. You just kind of watched. This made it again much more specific and linear.

While Patricia found that the process made the experience much more linear, Eva found that “it just made it more directed like I think I would have gone away from that observation without the framework not quite knowing how to improve my teaching by watching.” Eva also went on to say, “So, it was a little more specific. It gave me a starting point.” Samantha
also stated that the process gave her a guide and prevented her from getting off track. To further this point, Samantha stated that the process made the peer reflections easier because it was focused on a very few specific behaviors. It prevented her from getting lost in the big picture and also allowed her to say, “I am not critiquing this person, I just want to see how this person does this.”

Some teachers such as Paige, stated that while her principal wanted the staff to watch various teachers “we weren't quite sure what we were going in to watch.” However, the use of a framework and focused a process “made it a whole lot easier to be able to complete….and again that framework allowed us to be a lot more specific. So I knew exactly what I was going in for.”

Paige, who is a veteran teacher of 21 years and is also Nationally Board Certified, also stated commented on the impact of having a focused process with a specific teaching framework.

I think that this would be a great program. I would love to be evaluated this way as opposed to being evaluated using the [Danielson] framework. To me it just seems so vague… [using this process] we have all of the tapes, we can speak from what we saw, what we observed, how we did it, and just become better teachers. I feel that this was extremely beneficial. I found this really a fabulous experience far better than when I was going after my [national] boards [certification]. That was wonderful but the rubrics and the framework that were given to me were not nearly as outstanding as [the Marzano Observational Protocol]. This framework really allowed me to hone in on what I am supposed to be doing. I found this to be really helpful.
The following table displays the data reviewed, delineated by the group in which the respondents participated. Table 30 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 30

*Finding from Research Question 3(C1): Implementation of a Focused Process*

<table>
<thead>
<tr>
<th>Finding from Research Question 3(C1): Implementation of a Focused Process</th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>11</td>
<td>2.20</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>5/8</td>
<td>62.5%</td>
<td>8</td>
<td>1.00</td>
</tr>
<tr>
<td>Totals</td>
<td>9/13</td>
<td>69.2%</td>
<td>19</td>
<td>1.46</td>
</tr>
</tbody>
</table>

The findings between the cohorts reveal some differences. A total of nine participants (69.2%) across both cohorts referenced the benefits of implementing a focused process. However, the Danielson Cohort was more likely to report that the focused process was beneficial (80% or 4/5) with eleven total occurrences or 2.20 responses per cohort member compared to 62.5% of participants (5/8) and 1.00 response per cohort member from the Marzano Cohort. The focused process appears to have had more of an impact on the Danielson Cohort. This finding may be related to the specificity previously mentioned. Perhaps the Marzano Observational Protocol has some of focused process inherently constructed within the framework because it is more specific in its descriptions. This would allow teachers to naturally focus their efforts without being prompted to do so. However,
overall the cohorts did report that the focused process did help them to have a more meaningful experience during the reflective peer observations.

**Finding (C2) Peer observations created context**

Another finding was that peer observations allowed the participants to create context. More specifically, reflective peer observations created context for the descriptions found within a comprehensive teaching framework. In this study, context is a term used to describe how teachers were able to see specific elements, behaviors or strategies from a comprehensive framework enacted in the classroom. Context also refers to giving teachers a point of reference of specific elements, behaviors or strategies. For example, the following quote from Trinity helps to capture the essence of how reflective peer observations impacted participants.

> Even though you can read ideas in books, until you really see it, you can't really bring that into your own practice. Until I know what I am doing I can see growth but how do I really know unless I see another teacher especially one that you really respect. There is no data to compare yourself to. There is nothing to compare against besides my past performance, but how do I know where my past performance even lays. Trinity then went on to say peer observations gave her an opportunity to reexamine how she would deliver certain activities or respond to similar situations. Trinity stated the process gave her an opportunity to reflect and it also gave her “some sort of a comparison because otherwise you are on your own….how can you self-reflect when I have never seen anyone else [teach] besides here and there but never anything formal. So how can I truly compare myself to others?”
Other teachers stated that they were able to incorporate the strategies, practices, and behaviors that they witnessed during peer observations into their teaching. Nancy was focusing on student behavior during a peer observation, when she witnessed a strategy being used that she found useful. She said that she could “definitely come back and find ways I could use [the behavior strategy].” She also said,

That was really perfect having that opportunity to compare what was in the framework and knowing how she had done it. I could bring [the behavior strategy] back to my room and I saw how it worked. I also saw the connection to the framework.

Nancy went on to say that the peer observations really allowed her to “see how everyone else is doing it” and it gave her new ideas but she was able to adopt the strategies and behaviors to her goals and teaching style. Ultimately for Nancy, the peer observations allowed her to “have more organized clear goals, and a clear sight of expectations of administrators during observations. I think that this will make me feel more at ease during formal observations and I will be able to continue to reflect on my own.”

Others such as Samantha, gained a new appreciation for her colleagues. Samantha appreciated the opportunity to observe others because it gave her a chance to see if she could adapt and apply what she was seeing during the observations. “Seeing what other people do or how they manage a classroom discipline issue, that is always good to see by a practicing teacher.” Samantha went on to say that she enjoyed being able to see others teach and had an appreciation for their many talents.

While many participants gained an appreciation of their colleagues, others such as Julie were able to make connections throughout the peer observation to better understand the
framework. Julie found that during an observation, “One of the teachers that I observed, she did a lot more than I did. That was the part of her teaching. So, you could see [the framework] in use.” Also because Julie had an increased awareness of all of the components of teaching that were delineated within the MOP, she was able to “take away from it things that you can use to make yourself better. Also, I saw clever ways and ideas that this particular teacher put into her teaching.”

Vanessa was able to articulate how the specificity of the framework helped her to gain valuable information from the peer observation. Instead of just thinking this is a good teacher, Vanessa went in to see specifically what the teacher excelled at. When Vanessa was focused on student engagement, she:

was looking at just purely what percentage of those kids are engaged in instruction throughout the whole time. When I looked at that and this is a really good teacher super effective, but yet not all the kids were engaged and I thought okay this is something I would be doing with that student and took that back into my team-taught situation and hopefully adjust what I do there.

Ultimately, the peer observations helped teachers to confirm what they did well while also allowing them to see different approaches in action. Paige succinctly summarized the reflective peer observation experience by stating that the reflective peer observations allowed her to solidify what she did well and it also allowed her to step back and look at certain teaching strategies differently. Paige stated that “we are always so isolated in our classrooms” which prevents teachers from being able to share best practices. Paige also went on to say that “even though we might have been reflecting, we weren't that specific [before being introduced to the process used by the study].” Because the focus was more specific it
allowed her to be able to talk with others more easily about the experience. Paige stated, “Once you start getting a little bit more specific, there is actually something that we can talk about so that we have a springboard to bounce off of.”

Paige continued to talk about how the process incorporated during this study changed her viewpoint on peer observations because it gave her tools that allowed her to gain valuable information from the peer observations who said the process was “immensely” helpful. Though she was encouraged by her principal to see others teacher, she did not have a process to use that made the visits useful. Now that she has completed the reflective peer observations, she “wants to do it all the time” and found that she could gain “a whole wealth of knowledge and a whole new way of doing things. This [process] gave me a way to make [peer] observations useful.”

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 31 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 31

*Finding from Research Question 3(C2): Peer Observations Created Context for the Descriptions Found Within a Comprehensive Teaching Framework*

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>2/5</td>
<td>40.0%</td>
<td>4</td>
<td>.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>5/8</td>
<td>62.5%</td>
<td>13</td>
<td>1.63</td>
</tr>
<tr>
<td>Totals</td>
<td>7/13</td>
<td>53.8%</td>
<td>17</td>
<td>1.31</td>
</tr>
</tbody>
</table>

The findings between the cohorts reveal some differences. A total of seven participants (53.8%) across both cohorts stated peer observations created a context for the descriptions found in a comprehensive teaching framework. However, the Marzano Cohort was more likely to report that peer observations created a context for the descriptions found within a comprehensive teaching framework. In the Marzano Cohort, 5/8 participants (or 62.5%) had 13 total occurrences or 1.63 responses per cohort member compared to 40.0% of participants (2/5) and .80 responses per cohort member from the Danielson Cohort. The peer observations appear to have had more of an impact on the Marzano Cohort. This finding may also be related to the previous finding. Again perhaps because the Marzano Observational Protocol is more specific in nature it was easier to take the peer observation data and refer them directly to the specific areas within the framework.

**Finding (C3) Praxis stimulated**

Reflective peer observations stimulated praxis. Going beyond merely giving context, teachers stated that the reflective peer observations gave them new ideas, reminded them about strategies that are best practice or caused them to make changes. Previously, the term praxis was defined as “the act of applying new ideas to our own lives” (Knight, 2011, p. 43).
The term praxis will be used here to reference new ideas or abandoned practices that teachers either were reminded of or introduced to and then either attempted or planned to implement into their own classrooms. Teachers including Molly found the process to be empowering. I have been teaching for 13 years so things start to get a little stale and you start to think yeah I am doing this right and my way is a really good way. Then you go into a different classroom and it is kind of like a rebirth. Like wow, I never thought about taking it from this angle. This is the engagement that she gets out of these kids is nothing that I have ever gotten and we teach the same content area ....That to me was the most exciting, the most empowering.

Others like Karen simply said, “I definitely took things away from the observations that I would implement in my classroom.” The viewing of other teachers reminded participants to incorporate the certain strategies into their daily practice. Rachel stated that when she observed peers she was reminded of things that she had done in the past but may have not been doing recently, “until you see it done you don't realize it or until you see yourself doing it [on video]” this helped to remind Rachel of what she could and should be doing.

Rachel was able to transfer the strategies she saw during the peer observation into her daily practice. There were numerous references about just being able to see how other teachers “do it.” Eva stated that because she was looking for specific strategies and behaviors that the observation really wasn’t a critique of another teacher, but instead was a tool to help improve her own teaching. When Eva observed a new teacher introducing a concept she realized how much questioning the other teacher was using to connect it to their
previous knowledge. Eva stated, “Just to see that in action I was able to really observe what I went to observe and see how I could do it more effectively.”

The teachers were able to use the peer observations as opportunities to learn that became an impetus for change. Paige stated that the peer observations “taught me an awful lot,” gave her an appreciation of her peers and “it gave me some different skills to put into my toolbox that I could draw upon.” But even beyond this, Paige stated that she actually applied the ideas she saw in the classroom into her own teaching. Paige said that every time she watched a teacher she would “come back and try it in my classroom because the only way for me to really imbed it into different things is for me to use it right away.” Also Paige said that engaging in this process would be a great use of collaboration time with her peers, “If we started to do this and for our collaboration time to talk about what we have observed and what had gone well or [ask] how did you do this? How did you come up with something like that? Use it more as a growing tool.” She stated that teachers could share what was working, what was not and share the subtleties of how they were successful with their strategies. Typically, their collaboration time is focused around content but this process would give teachers a framework to have meaningful discussions about the actual process of teaching. Because Paige was applying new ideas to her teaching she was engaging in praxis. This idea was also reiterated by Molly who said, “I really liked the idea of seeing how other people taught. We collaborate in the morning, but we don't get into people's classrooms and really see what they are doing.”

Finally, Samantha succinctly stated how the peer observation caused her to change.
The second peer observation certainly had an impact on me just because it was so good. That is when I asked myself, “How can I present the pre-information better to the kids so that they are more successful on the literature that they are working on?” So, I have changed that. Samantha was able to change her teaching based on what she observed another doing in their class. Very specifically, instead of looking at improving engagement or questioning, Samantha was looking to improve her presentation of pre-information.

Another advantage of the peer observations was that teachers were able to see ineffective practices in action. In some cases, this confirmed that participants were doing some things better than their peers which helped to improve the participants’ motivation and confidence. During three of the peer observations, teachers reported that they were performing specific behaviors better than their peers. In all cases, this led the teachers to celebrate what they were doing well and not diminish what others were doing in their classroom.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 32 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 32

*Finding from Research Question 3(C3): Reflective Peer Observations Stimulated Praxis*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>2/5</td>
<td>40.0%</td>
<td>4</td>
<td>.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>5/8</td>
<td>62.5%</td>
<td>16</td>
<td>2.00</td>
</tr>
<tr>
<td>Totals</td>
<td>7/13</td>
<td>53.8%</td>
<td>20</td>
<td>1.53</td>
</tr>
</tbody>
</table>

The peer observations led to increased awareness which impacted self-management and self-monitoring. For some the peer observations confirmed that what they were doing in the classroom was indeed effective and “good teaching” it also put teaching into a context which allowed teachers to better monitor their own performance. However, the greatest impacts of peer observations were related to self-modification because it prompted participants to implement changes that were initiated by their observations which is self-modification. The findings showed some difference between the cohorts. The Danielson Cohort had four occurrences in which participants talked about enacting or emulating practices that they witnessed during the reflective peer observations which is an average of .80 occurrences per cohort participant. Whereas, the Marzano Cohort had 16 occurrences in which participants talked about enacting or emulating practices that they witnessed during the reflective peer observations which is an average of 2.00 occurrences per cohort participant. The data support the conclusion that the Marzano Cohort participants were more likely to engage in praxis after participating in a reflective peer observation.
Summary of themes related to research question three

Research Question three asked, “To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring and self-modification?” The researcher sought to understand how participating in reflective peer observations in combination with a comprehensive teaching framework impacted participants. Through interviews and focus groups it was discovered that by participation in peer observations with a specific focus provided meaningful feedback for teachers. The reflective peer observations allowed participants to better understand their respective comprehensive teaching frameworks because they were able to see specific elements in action within the classrooms they visited. This allowed participants to put their respective comprehensive teaching framework into context. The reflective peer observations also led to teachers attempting new strategies or reapplying “forgotten” strategies into their own classrooms. The Danielson Cohort was more likely to find value in the specific focus of the process while the Marzano Cohort was more likely to report that they were able to attempt new strategies and to see strategies as described within their comprehensive teaching framework. Again, this finding may be related to the specificity of the Marzano Observational Protocol. When elements and processes are more specific it makes it easier to identify and implement. Because the Marzano Observational Protocol is more specific it allowed its cohort members to more easily identify the elements and to apply it within their own classroom.
Findings related to research question four: Were the perceptions of teacher’s performance impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?

Participants were asked in their interview and focus group if the perceptions of their performance were impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? Through analysis it was discovered that the combination of tools (a comprehensive framework for teaching, video analysis of their own teaching, and reflective peer observations) and a structured reflective process (written responses to specific open ended questions, and a specific focus on a limited amount of elements) led to improved teaching. Participants were likely to continue with the process because they found real value in terms of the quality of feedback and the impact on their daily teaching. Participants reported that the process improved their metacognition as well as modified and improved their teaching. The written reflections allowed participants to synthesize and create meaning of their experience.

The six findings were as follows (each finding is identified by a letter and number along with a brief descriptor):

(D1) Tools and process lead to growth: Combination of tools with a structured reflective process led to improved teaching and teacher growth.

(D2) Importance of focus: A very limited and specific focus supported teacher growth.
(D3) Commitment to continue the process: Commitment to continue the structured reflective process because it was perceived to improve teaching

(D4) Increased metacognition: Participants improved their metacognition

(D5) Perception that teaching improved: Participants modified and improved their teaching by utilizing the structured reflective process

(D6) Importance of written reflection: Written reflections allowed participants to synthesize and to create meaning from their experience

Finding (D1) Tools and process lead to growth

The combination of tools within a structured collective process led to improved teaching and teacher growth. Overall, the teachers commented on how the structured collective process that utilized a comprehensive teaching framework in conjunction with video recordings of their own teaching and reflective peer observations improved awareness of expert teaching and reflection skills. For this finding, improvement was considered any reference to increased awareness of what constitutes expert teaching (as defined by the respective comprehensive teaching framework) or improved reflection skills. The emphasis was on the guided process and the focused attention to specific teaching behaviors that allowed teachers to be able to generate usable feedback that impacted their teaching in very specific areas. When asked how participating in the, “Developing Teacher Expertise Workshop” impacted her, Rachel said that it made her more self-reflective, and offered “clear guidance” about how to reflect and what needed to be done to “increase your teaching abilities”. She also emphasized that the video recording improved her self-reflection. Rachel also stated, “to actually see [my colleagues] in the moment or observing the kids in the
moment and seeing what is working well for them and kind of beg, borrowing, and stealing from them, that was powerful. There is nothing that wasn't beneficial about it.”

Karen’s response was also very similar. Karen was asked what she would tell other teachers about the workshop she said that it is worthwhile and “they would definitely grow professionally.” The process also helped participants to become more reflective and better able to monitor and modify their teaching. Karen ended by saying, “I think this process could allow [teachers] to move from good to great.”

Julie also talked about how teachers could improve via the workshop. While the workshop allowed teachers to become more self-reflective and to “become better teachers” it also gave more ownership to teachers by allowing them to set their own goals and allowing them to have control of the process. Julie stated, “making teachers much more aware and focused in choosing what they are going to work on and that in turn makes you a better and more focused teacher and a richer teacher.”

While Julie hinted that this process empowers teachers, Nancy directly stated that she found the process to be “self-empowering” because it is a process that is centered on growth. Nancy followed this by stating how this process impacted her self-evaluation. “The whole process overall I think made me truthfully more comfortable evaluating myself where I would probably have never done it.” Similarly, Rachel found that the process allowed her to feel ownership in regard to improving in the area that she identified. The videos allowed her to more accurately assess her teaching, and the peer observations allowed her to see her peers approach teaching on a daily basis which sparked new ideas and approaches for her to try.

Tiffany also talked about how the process impacted her ability made her look not only at herself but at her students as well, “The whole experience has made me look at myself, the
kids that I teach, the professionals that are around me and I want to be a distinguished
teacher. I want to make a difference which is why I do this.” Molly succinctly summarized
the experience by stating, “I would say that if [teachers] are truly interested in being a better
teacher, that this would be something they should take part in because it makes you think
about things that you probably normally don't think about.”

Going beyond reflection and thinking about things differently, Trinity made the
argument that the workshop was a differentiated approach that gave teachers the next steps to
get better. Trinity stated that:

This workshop experience laid out the art of teaching. There is more to it than just
here is your book and you give the information to a bunch of students. It kind of
brought the whole art of teaching that this is all that is involved. This is going on
simultaneously and at various levels. For the advanced teachers, here is what it looks
like. So, it kind of brought how complicated good teaching truly, truly is. It is
complicated and it involves many, many, many skills and not one person may have all
those skills at one point in time but it gives you the steps to get better if you truly
want to and if you put in the time and practice.

While Trinity verbalized how complicated teaching is by talking about the many skills
involved, Paige also had similar feelings about the volume of the skills that are involved in
teaching. Paige stated the process allows teachers to become better at teaching because it
only asked participants to focus on improving one or two specific elements instead of all of
the elements in the entire framework. Paige said, “I can't get better at all 40 of these at the
same time, so allowing me to just choose one or two really made a huge difference because
then you are focusing exactly on what it is that I am going to make better. And you stick with it until it gets better.”

Sandra also commented on how the process allowed her to improve by creating a manageable process that allowed her to focus on specific skills. The guided process distilled teaching into specific skills, “that encouraged you to try new things but with the support of a rubric to give you some ideas along with some support and some guidance.” Sandra also said, “You are not feeling like you are out there all on your own trying to piece it together, which I think many of us feel much of the time.” Ultimately, Sandra said “it has helped me figure out how to target something in particular and really work on that and say okay now how am I doing? Now am I where I want to be?...I think it has definitely helped me become a better teacher.”

Finally, Eva stated the combination of activities that were done in the workshop helped teachers to understand how improvement was possible. Eva focused on being introduced in to the concept of deliberate practice.

I think a combination of the things made this great. First of all, the article about deliberate practice really made me think about what I was doing, because as a musician, a music teacher, I have been practicing my whole life, but I always knew that if I practiced something incorrectly, I would learn to do it incorrectly very well and it would become permanent. So it made me think about again using that framework as like a model of correct effective teaching and making sure that the practice I am doing is what I want to become permanent in my own teaching.

For Eva, the idea of practicing correct and effective teaching was linked directly back to the use of a comprehensive framework.
Sandra was able to summarize the value of combining the different tools within the process. Sandra stated:

It was a gestalt thing, kind of a part of a whole. I think any of those things individually might have had a minor impact on my teaching but the peer observation combined with the video observation combined with the group discussions I think all together provided a really powerful experience in terms of being able to say like wow there are some very specific things I can look at. There are some really specific things I can do right now, some things I can do down the road. I think all of those pieces are really important.

Sandra stated the combination of the tools allowed her to analyze very specific parts of her teaching and to be able to set goals related to her teaching and the information she was able to obtain during the process.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 33 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).
Table 33

*Finding from Research Question 4(D1): Combination of Tools Within a Structured Process Led Improved Awareness of Expert Teaching and Improved Reflection*

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100.0%</td>
<td>20</td>
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</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100.0%</td>
<td>36</td>
<td>4.50</td>
</tr>
<tr>
<td>Totals</td>
<td>13/13</td>
<td>100.0%</td>
<td>56</td>
<td>4.31</td>
</tr>
</tbody>
</table>

The combination of tools within a structured process led to improved awareness of expert teaching and improved reflection as reported by the participants. All participants reported that they improved their awareness and/or reflection abilities because of this process. Again, for this finding, improvement was considered any reference to increased awareness what constitutes expert teaching (as defined by the respective comprehensive teaching framework) or improved reflection skills. The Danielson Cohort had 20 references in which participants talked about increased awareness or improved reflection which is an average of four responses per cohort participant. The Marzano Cohort had 36 references which participants talked about improved teaching, increased awareness or improved reflection which is an average of 4.5 responses per cohort participant. It appears that the combination of tools within a structured process led to improved awareness and reflection as reported by the participants almost equally across both cohorts.

**Finding (D2) Importance of focus**

The very limited and specific focus supported teacher growth. A reoccurring theme throughout the interviews was how having a very limited specific focus supported teacher growth and allowed the participants to gain the most from the experience. In this case, the
specific focus was in regards to selecting two or three elements from the respective comprehensive teaching framework. Participants were first asked to rate themselves on all elements of their respective comprehensive teaching framework and to then identify three elements to focus on improving over the course of the study. This helped to limit the scope of the framework which made the task of improvement more manageable for teachers. The incorporation of a specific focus also aligns with components of deliberate practice as delineated by Ericsson (1996) and Ericsson et al., (1993).

Karen said the process was helpful, “because I went in knowing exactly what to focus on so even though there were other things going on in the classroom, just being able to say I know I am focusing on grouping or I know I am focusing on transitions was helpful.” Karen used the term focused to describe her experience while Eva also stated that the process was guided and directed which made it more valuable. Because she was able to “really hone in one or two aspects of my teaching” it made the process manageable and more valuable. Eva also referenced the impact of using a framework. “I think if I had observed myself teaching without the framework I would have been lost as to how to improve just trying to take in the whole thing but taking out little aspects of my teaching made it more valuable.”

Julie stated the process allowed her to focus on a specific skill and to improve through analysis and reflection.

I zeroed in on just particular skills as opposed to looking at overall teaching. Was it good? Was it bad? When you look at a particular part of teaching, I could have picked out any number of these skills. It could have been how the kids were sitting. It could have been the behavioral part of it and just to be able to look at a particular,
you are able to get data to reflect, again self-reflect on how could I make it better, how could I be more effective.

Molly stated that focusing on specific behaviors made the process of improvement manageable. The focus took the pressure off of trying to become really good at everything at the same time. Molly stated “Just looking at that one thing makes it more manageable I think, little bits at time and once you perfected this you can go onto the next thing.” Molly went on to say that the focus made it “easier because I knew exactly what to look for, the idea of focusing on just one thing and looking for that one thing gave the observations direction.” Trinity also stated that the process “gave a better focus of what really mattered, the content and what skills you were working on. So, you weren't so distracted by all the little incidental things. You were able actually to focus and then grow and move on from there.” Tiffany added that without the focus that “Sometimes when you are observed, the feedback is not timely or useful, but this process made the feedback useful because it was so focused.” Nancy added that the focus gave her a tool to improve, “I have something that I could try, that I could use as a tool to get better as a teacher is exciting.”

Vanessa stated that the focused process made her look “at parts of [the framework] and more specific things” within the framework. This was similar to Paige’s experience. The process “forced” her “to go back and say okay this is exactly what I was looking for, did I do that, and did I do that effectively.” Paige stated by having specific questions and looking for specific elements within the video and peer observations, it “forced participants, to really focus” on improving their teaching through many different mediums.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 34 contains the number of participants in which this finding
was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 34

*Finding from Research Question 4 (D2): The Very Limited and Specific Focus Supported Teacher Growth*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100.0%</td>
<td>14</td>
<td>2.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>4/8</td>
<td>50.0%</td>
<td>8</td>
<td>1.00</td>
</tr>
<tr>
<td>Totals</td>
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<td>1.69</td>
</tr>
</tbody>
</table>

The very limited and specific focus supported teacher growth for the participants. The limited focus allowed participants to hone in on very specific strategies and behaviors which made the process of improvement seem manageable and very focused. A total of nine participants reported that the limited and specific focus helped to enhance the workshop experience. Again, for this finding, improvement was considered any reference to increased awareness what constitutes expert teaching (as defined by the respective comprehensive teaching framework) or improved reflection skills. The Danielson Cohort had 14 references in which participants talked about how the focus enhanced the effect of the workshop which is an average of 2.80 responses per cohort participant. The Marzano Cohort had 8 references which participants talked about improved teaching, increased awareness or improved reflection which is an average of 1.0 responses per cohort participant. It appears that the Danielson Cohort was impacted more by the focused process more than the Marzano Cohort.
This finding is very similar to finding C1 (Implementation of a focused process) from research question three in which the Danielson Cohort participant average was 2.20 and the Marzano Cohort participant average was 1.00. Again as previously stated, this may be explained by the specificity that is already contained within the Marzano Observational Protocol. The more specific nature of the Marzano Observational Protocol may prompt teachers to be more focused and thus lessen the need to have a process in place that narrows the focus to help guide improvement.

**Finding (D3) Commitment to continue process**

Participants committed to continue the process of completing self-evaluations, revisiting a comprehensive teaching framework, analyzing video of own teaching, conducting peer observations and writing reflections because it was perceived to improve the participants’ teaching. One of the unexpected findings in the study was teachers committing to continuing the process of completing self-evaluations, revisiting a comprehensive teaching framework, analyzing video of own teaching, conducting peer observations and writing reflections beyond the workshop. Participants who stated they would continue with at least three of the five listed components were considered to be continuing the process. Participants also made the comments that this process was energizing and that they felt revitalized by the process. Participants specifically said they would continue to use the process and that the experience impacted them professionally. Karen stated, “I definitely am going to utilize the framework next year…so I feel like professionally this has been a good experience.” Julie added that she hoped the district would considering implementing this full scale and that “it would be a shame for it to end here.” The full scale implementation would
be a replication of the workshop experience which included a self-evaluation, analysis of video of teachers’ own teaching, reflective peer observations and written reflections.

Other teachers talked about the impact that this process could have if it was continued on themselves as well as their students. Teachers such as Molly, even pinpointed exactly what areas they were looking forward to working on. Molly stated, “One of my goals for next year is to really start looking at making kids aware of their progress, the idea of self-assessing and then self-reflecting.” During the workshop she realized that none of her “formative assessment [have a] major reflective piece.” Molly went on to say that adding in a reflective component to her formative assessments is something she wanted to address, “but I think that I would need to go back and revisit some of the ideas from Marzano about ways of implementing that.” Molly later stated the process, “has given me ideas where I can start fresh at the beginning of next year and implement right away.”

Paige stated that she wished she had more time in the process and mentioned that her “goal for the summer is to take a look at the framework and hone in on two specific goals that I really want to work on and then just start tweaking those and moving those. I am a little bit excited about starting that.” Sandra talked about how beneficial continuing the process could be for her. Sandra stated that if she would continue to video record her own teaching, conduct peer observations, and use a framework for guidance it would be beneficial. Sandra stated, “I will see a lot more growth for myself than I have seen in the past. Where again in the past it was always more of a vague, like I know I need to get better and not really sure what to focus on.”

The process presented in the study allowed Sandra the ability to improve her teaching in a systematic way. Nancy focused on the fact that continuing the process would be good
modeling to her students. Nancy stated, “I think we would be good models to our students [by showing] that we are growing and changing and learning.”

Along with the commitment to continue the process, teachers found the process to be energizing. Sandra summarized it best by saying:

It got me at the time of the year when teachers start to lose a little bit of energy, it kind of re-energized me. It got me excited again about teaching and why I am teaching and what I want to do to become a better teacher. It helped me feel like continued growth is very possible and very attainable because sometimes you get to a point where my test scores aren't what they should be. You start to get a little down and a little frustrated. It is easy to start to feel like maybe I am just not cut out. The articles that you brought in and kind of ideas we discussed, the idea that everybody can grow if you know what you need to practice on, if you know how to practice. All of that sort of made me feel like excited again and possible that I can become the teacher that I want to be. So, that was really re-energizing.

Given that this study was conducted at a time of the year that was filled with additional duties to the typical teaching day (Advanced Placement exams, end of year field trips, transition meetings for future students, concerts, etc.) this is an important finding. Participants indicated that the process not only was useful but energizing thus it can be concluded that the process would be considered sustainable. Finding a sustainable and meaningful process for teachers and administrators in the area of teacher supervision and evaluation may be a key to developing an effective supervision and evaluation system.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 35 contains the number of participants in which this finding
was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 35

*Finding from Research Question 4 (D3): Participants Committed to Continuing the Process Because They Perceived It Improved Their Teaching*

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>13</td>
<td>2.60</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>6/8</td>
<td>75.0%</td>
<td>19</td>
<td>2.38</td>
</tr>
<tr>
<td>Totals</td>
<td>10/13</td>
<td>76.9%</td>
<td>32</td>
<td>2.46</td>
</tr>
</tbody>
</table>

Participants committed to continuing the process because they stated it improved their teaching. Ten of thirteen, or 76.9%, of participants reported that they would continue to implement the process that was presented during the workshop. Again, for this finding, participants who stated they would continue with at least three of the five listed components (completing a self-evaluation, revisiting a comprehensive teaching framework, analyzing video of own teaching, conducting peer observations and writing reflections considered to be continuing the process). The Danielson Cohort had 13 references in which participants talked about continuing the process which is an average of 2.60 responses per cohort participant. The Marzano Cohort had 19 references which participants talked about continuing the process which is an average of 2.38 responses per cohort participant. Both cohorts had very similar results and commitment to continuing implanting the process that
was utilized during the workshop. Participants’ statements showed they found real value in the process and they believed that the process improved their teaching.

**Finding (D4) Increased metacognition**

Participants improved their metacognition. One of the findings was that the process that incorporated the use of specific elements of a comprehensive teaching framework, self-evaluations, analysis of video of their own teaching, reflective peer observations, and written reflections improved teachers’ metacognition. More specifically, teachers became more aware of their teaching performance and were able to create a plan to help monitor and modify their teaching practices. This aligns with the concepts of self-management, self-monitoring, and self-modifying that were discussed in the literature review.

The workshop experience involved professional development around the concepts of self-managing, self-monitoring, and self-modifying. This was done in order to create a common language for the participants. Essentially, it allowed the participants to think differently about reflection and to organize their respective thoughts which could lead to more specific and focused written reflections. At various times, the groups discussed how applying the concepts of self-managing, self-monitoring, and self-modifying impacted their experience.

Karen stated the process made her “very aware of what needs to be done.” She went on to say that she is using the framework to make her plan as well as a reminder of what she should be doing. Finally she is asking herself, “Now what am I going to do in order to get to where I want to go. What changes do I need to make? What special development do I need to seek in order to help me get to my end result?” Karen linked all of these questions directly back to the comprehensive framework.
Molly talked about how the process made her ask questions about her own teaching such as; “What is it about this lesson that isn't maybe appealing? What is it about my delivery that is not very appealing?” Molly also stated, “It is difficult to ask these types of questions because you are admitting what you did were not great or perfect. And I don't expect to be perfect, but it is a very difficult thing especially as a teacher. We are notorious for not liking change.” Molly also stated, “being meta-cognitive means that you always have to evaluate what you are doing and what you did and why you are doing it….I think that both watching yourself on the video and watching someone else provides a lot of opportunity for metacognition.”

Tiffany also had a very similar experience. She stated that self-management is about setting a plan while self-monitoring is being able to know “what is good and what is bad” while self-modifying is being able to adjust it for the next class. She finished with the following statement:

Awareness is the ability to understand you need to do that. That is part of the process. The process is build it, show it, fix it, show it again, build it again. It is a process. It is not one thing and then you are done. It is a complete circle.

Many teachers commented that this process made them reflect constantly. Karen stated that she felt she “was constantly reflecting and thinking about what it is I was doing and why I was doing that.” Karen went on to say that it impacted her teaching because, “You are thinking about your thinking. You are thinking well why did I use this transition strategy versus this one or would this have worked better if I tried it, not at the beginning of the class but at the end of the class.” Patricia had a similar experience that she found, “much, much more useful because you are sitting there really, really reflecting on the act of teaching
versus [only] content. This whole process is just forced reflection which then helps figure out how I need to change things."

The participants also stated that they needed to practice all three components self-management, self-monitoring and self-modifying in order to make the most growth. Karen summarized this best by stating, “I think it is definitely important to be able to set goals, recognize what you need to work on but if you are not willing to change… you are just going to be stuck.” Karen stated that teachers needed to be, “willing to say oh that lesson really bombed what can I change to make it better. At what point in this lesson did it fall apart”? If teachers aren’t aware or willing to ask those questions then change will be hard.

Julie said it was a continuous circle, “I am going to go through those three phases continuously. I can see myself in the course of a day quickly going through those cycles so many times.” Samantha also shared her thoughts on how the process looked.

It is circular. You have to do one to get to the next to get to the next and then when you are there then you start in through that whole process again. It is sort of like while I am playing you practice and you practice and you practice and then you kind of hit a plateau. That plateau is when most kids and adults too just go forget it, I am done. I am not getting any better. Then you have to start that whole process again to get up to that next plateau area where you hang out for awhile. So, I see it really as a circle because it has to be a constant change or if it is not a constant change, then it becomes very stagnant like that professor that doesn't get better. It will get worse if you don't change anything.
Samantha’s explanation is very similar to the concept of automaticity used by Ericsson. According to Ericsson (1996) Ericsson et al., (1993), only those who seek expertise look to go beyond the plateau that Samantha described.

To others, however, the process wasn’t as easy to define. Sandra discussed how the metacognitive process works by stating that “it is really messy…..really free flowing”. Sandra stated that participants need to move between setting goals, monitoring and modifying their behavior. This was not a process that was linear but it was a “fluid” process.

Tiffany believed the goal of the workshop was to create a change in the metacognition process for teachers. For Tiffany, the workshop made participants more aware of how they thought about their own teaching, good teaching practices, how effective they currently are and how can they improve. Tiffany was able to succinctly articulate the entire workshop experience in this statement.

If you go back to meta-cognition, it is about self-awareness and self-change and I think the whole experience was developed around a metacognition change. That is what I related this experience to. This was about a metacognition change in your approach. It wasn't about better teaching styles. It wasn't about can you assess it right. It was about thinking about what you are doing and thinking about how a good teacher is and thinking about becoming a good teacher and thinking about how you can put your students in the best situation or experience to be successful. That is what the whole thing was about. It was being more aware of what type of educational experience you are delivering. How valuable is it? How useful is it?

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 36 contains the number of participants in which this finding
was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 36

*Finding from Research Question 4 (D4): Participates improved their metacognition*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100.0%</td>
<td>15</td>
<td>3.00</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100.0%</td>
<td>14</td>
<td>1.75</td>
</tr>
<tr>
<td>Totals</td>
<td>13/13</td>
<td>100.0%</td>
<td>36</td>
<td>2.77</td>
</tr>
</tbody>
</table>

Participants improved their metacognition by becoming more aware of their teaching performance and were able to create a plan to help monitor and modify their teaching practices. All 13 participants reported that the utilization of a structured reflective process improved their metacognition in as it related to their teaching practices. The Danielson Cohort had 15 references in which participants stated they improved their metacognition which is an average of 3.00 responses per cohort participant. The Marzano Cohort had 14 references which participants stated they improved their metacognition which is an average of 1.75 response per cohort participant. According to the data analysis, the impact of the structured reflective process on metacognition was a much stronger theme within the Danielson Cohort than in the Marzano Cohort. While this was a stronger theme within the Danielson Cohort, the structured reflective process still impacted the metacognition of all participants. This aspect will be discussed in more detail in analysis of the next finding.
Finding (D5) Perception that teaching improved

Participants modified and reported that they improved their teaching by utilizing the structured reflective process. While the previous finding discussed how participants improved their metacognition, this finding is more focused on the action that followed the awareness. Ultimately, the goal of the workshop was to move participants toward becoming expert teachers. This meant that teachers needed to become aware of areas in their teaching where they were deficient. The increased awareness was designed to be a stimulus for change which could lead to improved performance. However, participants needed to move beyond simply being aware of their needs and make attempts to address their deficiencies and improve their teaching. Participants offered numerous examples of how they modified their teaching practices because they applied what they learned from the workshop.

Sandra stated that utilizing the structured reflective process improved her teaching. She stated that she “implemented the things that I wanted to implement and I saw the impact that I had on the clarity of my teaching and I saw the impact that that had on kids knowing what they were supposed to know.” Not only did Sandra immediately make changes that impacted her classroom, she felt that the process would lead to even more change. Sandra later commented on how the media portrays teaching and how she sees it now.

It is funny in teaching, you see these movies like Freedom Riders and you get this idea that there are these magical teachers that come in and do this amazing job and all the kids are like enraptured with learning. Then you think, ‘Oh I don't have the gift.’ Going back to that growth mindset is really refreshing because you think, you know what? I just need to keep working at it. I just need to be willing to go through that process and figure out what I need to do different and better. There is not some
magic that happens for some people and not others, but it really about my own commitment to growing as a professional and continuing that process indefinitely. Sandra stated that she when she looked at the framework for the final evaluation, “I really have seen some growth in myself. I am still not where I want to be but it is really encouraging to see that I can make these changes and I can see how that impacts things positively and how that impacted my kids in a positive way.”

Vanessa also stated that she grew professionally because she looked at what she was doing and found a way to improve. However, she didn’t think that she was changing the way she was teaching but that she was changing how she evaluated her teaching. She is now more conscious about knowing, “whether or not I know at the end of every day whether that was an effective lesson for every single individual.” She is better at monitoring the lesson while it is in progress. Vanessa stated, “I am adjusting to stop at that 15 minute mark, to stop at the 10 minutes mark, to stop at the end of an activity and instead of the next day going back and reviewing.” While Vanessa stated that she didn’t think she had changed her teaching, she has changed some of her processes. While Vanessa chose to focus on how more effective monitoring could help her to make changes. Paige said the process allowed her to make changes in her teaching because she saw herself “on tape and going to watch some others that energized me as well. It allowed me to say, you know what I can try these different things. And because the kids change from year to year to year, I need to change from year to year to year.”

Tiffany stated that the process allowed her to not only become aware but to make immediate changes. However, true change takes persistence. While she realized there were areas that she excelled and other areas where she needed to improve she was able to make
some immediate changes. For Tiffany, the video highlighted a very specific area in need of improvement. Tiffany stated “I didn't know I [distracted my students when I taught] in that respect that was an immediate change. It was like I saw it, I changed it. That was an immediate change that I tried to make.” However, Tiffany went on to say:

But then practicing that change is a whole other thing. You see it, you say oh my gosh I have to change that. You change it but most of those things are habits and so practicing change is difficult especially in a classroom or in a school where things are constantly changing.

Tiffany followed by stating, “I want to be more of an expert at teaching and that there are different levels about expertise in teaching. There are. I just want to be a better teacher. That is what it really comes down to.” Behind this ability to change is a belief that teachers can become better if they choose to do so. The workshop included professional development around the idea of developing a growth mindset to help participants understand the concept of external locus of control. Many participants talked about the desire to become better and of avoiding complacency. There was a strong desire for participants to rise above the perception of being a good teacher to actually know they are a good teacher. Tiffany summarized this best by stating, “So, I internally want to know [that I am a great teacher]. I want to have that professional purpose to know that I have taken the steps to always grow and develop in my profession.”

Rachel also talked about how the process helped her change. The utilization of a comprehensive teaching framework, video analysis of her own teaching, and written reflections showed her what she should be doing in the classroom. She said, “it is that continuously growing type of thing. It gives you that non-stop ability to say hey, now I am
going to look at the next part of the framework, work on that and constantly better myself by practicing different skills.” Julie also had a similar experience. When asked if the process had made Julie a better teacher she stated that the process is constantly making her “think about what areas I can improve on.” Julie also said, “I know that I have already made changes that have helped students.”

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 37 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 37

**Finding from Research Question 4 (D5): Participants Modified and Improved Their Teaching by Utilizing the Structured Reflective Process**

<table>
<thead>
<tr>
<th>Finding from Research Question 4 (D5): Participants Modified and Improved Their Teaching by Utilizing the Structured Reflective Process</th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>5/5</td>
<td>100.0%</td>
<td>9</td>
<td>1.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>8/8</td>
<td>100.0%</td>
<td>26</td>
<td>3.25</td>
</tr>
<tr>
<td>Totals</td>
<td>13/13</td>
<td>100.0%</td>
<td>35</td>
<td>2.69</td>
</tr>
</tbody>
</table>

Participants modified and improved their teaching by utilizing a structure reflective process. All 13 participants reported that the utilization of a structured reflective process allowed them to modify and improve their teaching practices. The Danielson Cohort had nine references in which participants stated they modified and improved their teaching which
is an average of 1.80 responses per cohort participant. The Marzano Cohort had 26 references in which participants stated they modified and improved their teaching which is an average of 3.25 responses per cohort participant. According to the data analysis the structured reflective process caused more instances of modified and improved teaching within Marzano Cohort than in the Danielson Cohort. While this was a stronger theme within the Marzano Cohort, the structured reflective process still caused modification and improvement within both cohorts.

Comparing this finding with the previous finding shows that the results are practically reversed. These findings are compared in Table 38. The Danielson Cohort reported on an average of 3.00 references per cohort participant that the structured reflective process improved their metacognition, while the Danielson Cohort reported an average of 1.80 references per cohort participant that the structured reflective process led to modified and improved teaching. This finding was almost exactly reversed within the Marzano Cohort. The Marzano Cohort only reported on an average of 1.75 references per cohort participant that the structured reflective process improved their metacognition. However, the Marzano Cohort reported an average of 3.25 references per cohort participant that the structured reflective process led to modified and improved teaching. The data show that the Danielson Cohort reported more often on becoming more aware of what needed to be changed but that the Marzano Cohort reported more often on making more actual changes and improvements.
Table 38

Comparing findings (D4) Improved Metacognition and (D5) Modified and Improved Teaching Between Cohorts Using the Cohort Participant Average References Per Finding

<table>
<thead>
<tr>
<th></th>
<th>(finding D4) Improved metacognition cohort participant average</th>
<th>(finding D5) Modified and improved teaching cohort participant average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>3.00</td>
<td>1.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>1.75</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Finding (D6) Importance of written reflections

The written reflections allowed participants to synthesize and to create meaning from their experience. The process of writing the reflections made the experience more memorable for the participants. Participants were able to synthesize and create meaning of their experiences. The written reflections required participants to think through the process and allowed them to make connections which enhanced their learning. It was consensus among the participants that the reflections made them think more thoroughly through the process and organize their thoughts. Also, according to Sandra the written reflections helped her to, “engage fully within in the process.” For some it was a key component; Samantha stated, “I don't think it would have been a successful program had we not had to [write the reflections] as well.”

When asked about writing the reflections, Karen stated “It really made me think. The questions basically didn't leave much room for your judgment or your bias. It basically was real black and white. What did you see, what was happening?” Karen later said, “I just felt [the reflection questions] left out room for a lot of our natural judgments and our natural bias, and it gave you the opportunity to reflect and think about what it is that you were focusing on
whether you saw improvement from video one to video two or from this teacher to that teacher.” Finally, it was the act of writing that left Karen with a lasting impression, “I felt a big piece of reflection is being able to write it because you are able to actually really think about it and really recall what actually happened. That is where the reflective piece and the take away comes from.” Similarly, Patricia stated the reflections “solidified the things that I need to work on and I need to continue to work on and tweak them by reflecting.”

Molly stated that the she thought “it was really valuable” to be able to write about her experience. It was evident that a majority of the participants found the written portion of the experience to be valuable. Patricia stated that the written reflections, “force you to stop, pause, and reflect” and that it “definitely made it more meaningful.”

Sandra may have captured why the participants found the written reflections to be valuable and meaningful. Sandra stated that the reflections “force[d] you to think through things…step by step. Like, what did I get out of that? What am I going to do with that information? What is my next step?” Sandra also stated that “without that structure it would be really easy to think that you were doing the process but not really fully engage in it.” The questions helped to standardize the process and to helped participants to focus on the essential components of the analysis.

This finding is also echoed in Vanessa’s comments. Vanessa stated the written reflections “helped me in discussing it with other people….It would have been difficult for me to share what I was doing with somebody else” if she hadn’t completed the written reflections. Eva also stated the written reflections “helped to verbalize exactly what I saw and what I thought about what I saw and what I intended to do about it. The reflections helped me to articulate my thoughts.” Eva was better able to think about what she had gained and it
helped her to “define how I was going to improve.” Rachel had a similar response by stating the written reflections created “more of that ownership” which clarified for what she needed to do to change.

Paige stated the reflections, “pulled everything together for me. It was a chance for me to really sit down and analyze how much I really did learn.” Paige went on to say, “Once I pulled everything together, it was really eye opening because at that point yes I did grow. Yes I did learn how to do these things. Yes it did impact my teaching.” Paige finished by stating the reflection component was “one of the greatest things because it forces you again to look at what you were doing.” This answer was similar to Julie’s response who stated the written reflections;

…change you because you make discoveries within your reflection. It is like when you have a good discussion with someone and all of a sudden you make connections and you talk out your ideas and your thoughts and then you make realizations. The same thing happens with your reflections. You start thinking and planning and understanding within them.

Ultimately, the intention of the written reflections was to cement participant learning from the video analysis and peer reflections. The reflections were designed to help participants increase awareness by self-evaluating their self-managing and self-monitoring skills which may have helped motivate them to modify their current teaching practices. Participants were able to verbalize this in the interviews. Nancy stated the written reflections were beneficial in the fact that it created an awareness of “what your strengths and weaknesses are. Accept them, embrace them and then use them to continue to grow professionally.” Rachel also stated, “It is more than thinking about what you are doing. You
are acting on what you are doing and you are really looking at it more in depth than what you were looking at before.” In both cases, the participants were able to talk about evaluating and modifying their current practices.

Participants were given professional development around the concept of metacognition. The groups were also asked to think about reflection in terms of self-managing, self-monitoring, and self-modifying. This was done to give participants a common language and more specific way to talk about their reflections. Sandra was able to summarize the consensus of the participants.

I think breaking metacognition into the terms was helpful because I think if you would ask me if I self-reflected before I would have said, yeah I self-reflect all the time, but obviously it wasn't getting me to where I wanted to be. So, self-reflection in and of itself clearly isn't enough. So, I think breaking [metacognition] into those concepts tells you that there is more than just sort of the mental act. There is the next step. So it is what am I going to do with that and how am I going to focus that attention and make that really meaningful.

The use of the concepts of self-managing, self-monitoring, and self-modifying allowed participants to think in terms of goal setting and planning, monitoring their status, and making changes that were responsive to the results of the monitoring.

Three participants stated that they did not enjoy writing the reflections, but that the reflections were beneficial. They felt they were able to model learning for their students and it was a way for them to “remember what it was like to be a student” Two of the participants stated they only completed the written reflections because they were “required” to do so. In each instance, however, all of the participants said they found value in completing the
reflections. Two other participants stated the written reflections did not add to their overall learning because they had thought out the reflections “word for word” before they were written. However, they found the questions and process to be a very good learning experience.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 39 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 39

*Finding from Research Question 4 (D6): Written Reflections Allowed Participants to Synthesize and to Create Meaning from Their Experience*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>12</td>
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<tr>
<td>Marzano Cohort</td>
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<td>87.5%</td>
<td>23</td>
<td>2.88</td>
</tr>
<tr>
<td>Totals</td>
<td>11/13</td>
<td>84.6%</td>
<td>35</td>
<td>2.69</td>
</tr>
</tbody>
</table>

The structured reflection process allowed participants to synthesize and create meaning of their experiences. The process was viewed as a tool that allowed teachers to focus on selected aspects of their teaching and to improve their teaching through increased awareness, and implementation of new or previously abandoned strategies. The written reflections clarified meanings and led to ownership and commitment to change. The data showed that 11/13 or 84.6% of participants found value with completing the written
reflections. The Danielson Cohort had 12 references in which participants stated the written reflections either allowed participants to synthesize or create meaning from their experience which is an average of 2.40 responses per cohort participant. The Marzano Cohort had 23 references in which participants stated the written reflections either allowed participants to synthesize or create meaning from their experience which is an average of 2.88 responses per cohort participant. This finding was very similar across the cohorts.

**Summary of themes related to research question four**

Participants were asked in their interview and focus group if the perceptions of their performance were impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? Through analysis it was discovered that the combination of the following tools; a comprehensive framework for teaching, video analysis of their own teaching, reflective peer observations and a structured reflective process (written responses to specific open ended questions, a specific focus on a limited amount of elements) led to reports of improved teaching. Participants were likely to continue with the process because they found real value in terms of the quality of feedback and the impact on their daily teaching. Participants reported that the process improved their metacognition and helped them to improve their teaching. The written reflections allowed participants to synthesize and create meaning of their experience.

In what was the most interesting finding of the study, participants from the Danielson Cohort reported that the process improved their metacognition at a much higher rate than the Marzano Cohort. The Danielson Cohort referred to improved metacognition an average of 3.00 responses per cohort member compared to the Marzano Cohort average response per
member of 1.75. However, participants from the Marzano cohort referenced modifying and improving their teaching by utilizing the structured reflective process an average of 3.25 responses per cohort member compared to the Danielson Cohort average response per member of 1.80. It appears the Danielson group became more aware of expert teaching as delineated by their respective comprehensive teaching framework whereas the Marzano Cohort was more likely to actually modify their actual practices.

Findings related to research question five: Did utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways?

Participants were asked in their interview and focus group if utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitated deliberate practice. The data analysis revealed that all ten components of deliberate practice that were previously identified were addressed through various means of the workshop. Participants also reported that this process helped to support teacher growth and teacher evaluation.

For the first section, the presentation of the findings were deemed to be easier to present if they were placed within the key components of deliberate practice as delineated by Ericsson (1996) and Ericsson et al, (1993). The second finding of research question five will discuss teacher growth and teacher evaluation. These two findings will be discussed to describe how utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitated deliberate practice. The two findings were as follows (each finding is identified by a letter and number along with a brief descriptor):
(E1) The structured process impacted deliberate practice: The structured reflective process impacted the key components of deliberate practice

(E2) The structured process impacted supports teacher growth: The structured reflective process supports teacher growth and teacher supervision and evaluation

**Brief review of key components of deliberate practice**

When considering if utilizing a structured reflective process, involving a comprehensive teaching framework to analyze a teacher’s own teaching via video recording and reflective peer observations, helped to facilitate deliberate practice it would be helpful to review the key components of deliberate practice according to Ericsson (1996) and Ericsson et al., (1993). Ericsson contends that deliberate practice is necessary to reach levels of expertise. Developing a process that addresses each of the key components of deliberate practice may help promote the development of teacher expertise. The following table was previously presented in the literature review in chapter two.
Table 40

*Key Components of Deliberate Practice*

<table>
<thead>
<tr>
<th>Key Components of Deliberate Practice</th>
<th>Goal is improved performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills to be developed should be based on specific needs</td>
</tr>
<tr>
<td></td>
<td>Sustained effort of repetitive of specific tasks are designed to improve weakness</td>
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<tr>
<td></td>
<td>Activities provide opportunity for learning and skill acquisition</td>
</tr>
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<td></td>
<td>Practice should be outside of comfort zone</td>
</tr>
<tr>
<td></td>
<td>Performance is carefully monitored</td>
</tr>
<tr>
<td></td>
<td>Feedback is necessary</td>
</tr>
<tr>
<td></td>
<td>The ability to self-monitor is a necessity</td>
</tr>
<tr>
<td></td>
<td>The process may not be enjoyable but the pleasure comes from the development and enhanced performance</td>
</tr>
<tr>
<td></td>
<td>Expert performance is acquired gradually and incrementally</td>
</tr>
</tbody>
</table>

(Source Ericsson (1996) and Ericsson et al., (1993))

**Finding (E1) The structured process impacted deliberate practice**

Each of the key components of deliberate practice will be used to define the following sections. Evidence from the interviews and focus groups will be presented in each of the key components. In one instance, components were combined because they were so similar or interrelated. The key component “Feedback is necessary” was combined with the key component “the ability to self-monitor is a necessity” because in this study much of the feedback was directly connected with self-monitoring.

**Goal is improved performance**

Throughout the interviews, participants stated they desired to get better. The process utilized within the workshop allowed participants to not only set a goal of improved performance but also a structure to reach their goal. Eva used the process to identify “which areas really need the most work.” Eva also said the process was “really helpful for me to see where exactly I can start to improve.” While Eva used the process to identify specific skills
to improve, Samantha used the process to initially identify specific skills to improve but then she took what she learned “looking at a more global approach” to teaching her students. The process allowed her to gain a better perspective on how she could teach music to her students beyond the surface level. The process allowed her to gain a new perspective which allowed her to set goals of improvement at a much deeper level.

Karen was able to succinctly summarize how the process impacted her. “Through this process you are always trying to see what you can do better.” The process allowed participants to continue to improve even if the current performance was considered “distinguished.” The process prevented Karen from remaining stagnant and prompted her to ask, “…still how can I get better?” This reveals that Karen is avoiding automaticity which is a primary deterrent of reaching expertise. According to Ericsson (2008), in order to reach levels of expertise, individuals must avoid automaticity which leads to arrested development.

**Skills to be developed should be based on specific needs**

The process utilized within the workshop allowed participants to utilize a framework to identify needs that were specific to each teacher. Essentially, the process allowed teachers to participate in differentiated professional development. Teachers were able to use their respective comprehensive teaching framework to identify specific needs and were allowed to focus on two to three behaviors to improve. Molly stated the MOP gave "a definition of what expertise in teaching look(s) like.” This allowed teachers to have a clear understanding of what their needs could potentially be. Through the analysis of video, teachers were able to either confirm their perception of their specific needs or select a different skill to develop based on what they were able to learn about themselves after viewing the video.
Tiffany stated the process allowed her to “focus on the little intricate things.” Tiffany stated by focusing on improving “specific components, the elements themselves, not the whole model at one time” allowed her to really improve in those areas. Consensus among the participants was the process allowed teachers to focus their improvement efforts in areas of their own choice. The process forced teachers to identify specific areas of need and gave teachers a structured process that they could use to facilitate improvement. This was a key finding of the study. Consensus among the teachers was the process confirmed what they had already known about their current performance but the process that was implemented finally gave them a way to improve. As Sandra stated,

I think basically I have always known that I have a lot of room to grow in certain areas…[but] I struggled with what is it specifically I need to do differently. The whole experience finally gave me that missing piece that I have been looking for. This is a way to really take it apart, break it down into pieces, and then figure out, I want to work on this and then I want to work on this, I want to work on this. So the whole process for me was very much something that I was looking for and it just hadn't been there before.

Thus the process allowed participants to develop their skills based on their specific needs.

**Sustained effort of repetitive, specific tasks are designed to improve weaknesses**

Before designing tasks to improve, participants needed to be able to identify areas in which to improve. This was accomplished by clarifying expectations and goals for teachers. Teachers, such as Eva, said the process “gave me some really clear goals and helped me to very clearly define what I want to improve on.” Others such as Vanessa said “the focus of knowing what to look for had the biggest impact on deliberate practice” for her. Sandra said
the process impacted deliberate practice because in the past she could only “make some
guesses as to what was good and what wasn't” but the process “actually made [MOP] more
concrete.” The process allowed teachers to identify a skill to improve, focus on improving
that particular skill through a concerted effort.

After identifying the area to improve, teachers were able to specifically identify and
practice skills and strategies related to their area of improvement. Nancy stated that the
framework helped her to identify what goals she wanted to work on which allowed her to
start “tweaking the activities knowing that I want to improve upon that particular goal
through the framework.” In this instance, the activities were modified with the clear intent of
improving in this specific area. Also, Sandra was able to clearly articulate how this process
impacted her. Sandra stated that in the past she was good at taking in information and she
was able to think through it but she had difficulty taking the next steps of implementation.
This process “guided her thinking” and became a tool that she could use to “be able to decide
the specific parts I am going to work on.” Sandra summarized the process by saying, the
process was about being able to take information and to “break down what your skill sets are
into parts so that you can start to practice those parts and adjust those parts as needed.”

Consensus among the teachers was the process allowed them to separate teaching into
components and to analyze specific and concrete examples of teaching. One of the
differences was that six of the eight teachers in the Marzano Cohort were able to continually
reference very specific skills such as chunking content into digestible bites, previewing
content, celebrating student success, tracking student progress, and providing clear learning
goals, whereas the Danielson Cohort spoke in more general terms such as transitions,
questioning and discussion.
The process incorporated in this study asked participants to engage in a sustained effort on two or three very specific behaviors. Throughout the interviews, participants commented on the concept of focused practice. Participants self-selected a specific strategy or behavior to focus on and then spent time either critiquing themselves in this area or observing other teachers in this area as well. The participants repeatedly talked about areas in which they focused their efforts. Some of the areas participants focused on were; stating the learning target or objective, reviewing content, feedback to students, questioning and discussion techniques. Participants were asked to answer the following questions in their reflections:

- As a result of the peer observation (or video analysis of their own teaching) what have you learned about your own teaching?
- What new or different strategies will you implement as a result of completing the peer observation (or video analysis)?
- What new questions about your teaching have emerged after completing the peer observation (or video analysis)?

In each instance, participants analyzed their teaching in specific areas to discover how they could incorporate what they learned into their teaching and what areas they need to further analyze. Because teachers were asked to record themselves on three separate occasions as well as observe peers on three separate occasions they were exposed to the same questions and skill acquisition opportunities multiple times.

Again, the consensus among participants was the focus on two or three specific skills allowed them to “get better” in these areas. Trinity was able to summarize this concept in the following manner:
So because I knew that was something that I needed to practice on and then also I brought it into the lesson plan, so I forced myself to practice it. And when I was teaching, that was always in the back of my head to work on it. So I think that deliberate practice is successful. I plan to just keep working on one section until I think I have it very, very good and then move on.

During the study, participants were asked to focus on a limited number of strategies over an extended period of time. This allowed the participants to sustain their efforts on the identified area.

**Activities provide opportunity for learning and skill acquisition**

The process utilized within the workshop was designed to give participants multiple exposures to effective teaching practices. Teachers were engaged in learning by reading articles about deliberate practice, comprehensive teaching frameworks, metacognition and mindset. The self-analysis allowed teachers build awareness about their current level of performance and the video analysis allowed teachers to either confirm their perception or reveal new areas in need of improvement. The reflective peer observations allowed teachers to see others teach which helped to put the comprehensive teaching frameworks in context and stimulate new ideas or strategies to attempt. The written reflections allowed teachers to synthesize and solidify their learning. Trinity stated “Teachers can improve with this process, both young and old, because it gives them a framework that works.” Also, Julie stated that the process was successful because it kept the development of teaching expertise “a priority in my mind.” She also stated, “It is kind of like you learned things by hearing it five to fifteen times, so the more you watch it in yourself or look for it in others, the more it is going to become ingrained in my mind and I will do it more.”
While the process allowed participants to learn about themselves, the selected framework and potential new strategies, the process also allowed teachers to acquire skills. While discussing the strategy of reviewing content, Vanessa stated, “if I just structured it a little bit differently” she was able to “hit the target the way it was written in the framework….by shifting little things around instead of making a whole big change.”

Because the process focused the efforts of the participants on a few very specific skills teachers were allowed to practice and to improve. Julie focused on talking about the goal of the lesson. This is something Julie thought she had done in the past, but she emphasized it and noticed the difference. “The more that I said it to them the more that they were able to zero in on what they were going to be learning, what they were supposed to be learning. So through this process I think I really developed in doing that a lot more both orally and visually.” Julie not only said it to students, she stated having them write it down. The process allowed her to practice and improve in this very specific skill.

Patricia stated that the process could help all teachers become better. Patricia stated that:

[the process] make[s] me think of struggling teachers and those teachers who were not forced out until too many years later and have done some damage. How beneficial this could be when it comes to doing well with teaching. This could be used for new teachers. This could be used for veteran teachers who have been struggling. Hey let's look at this. Here are some examples. Here is what you are doing. Here is what you are not doing. I think it would help them with that.
The consensus among the participants was the process allowed them to learn about new possibilities and they had the opportunity to improve their teaching through focused efforts on very specific skills.

**Practice should be outside of comfort zone**

Participants stated the process utilized within the workshop allowed them try strategies and activities that they would not have typically tried. While either recording or watching the recording was uncomfortable for a majority of teachers, this was because they didn’t like seeing themselves on video; the process itself allowed teachers a chance to grow by making them aware of different approaches and strategies.

Many of the teachers used terms that related to the concept of “growing professionally.” Nancy stated having a specific goal made the process “more beneficial” and that this process allowed her “to grow professionally” because she tried things she would not have tried. The process “encourages me … to try and challenge myself to do different activities, whereas before if I looked at the lesson, go with the safe route verses now I challenge myself to try newer ideas to see if it would work.” Nancy went on to say, “I find myself being a little brave with plans or activities that [before this process I] would not have done so.” Participants were exposed to new ideas through either the framework, reflective peer observation or discussion. The participants stated that they felt supported which allowed them to try new strategies. Another factor that allowed teachers to work outside of their comfort zone was the professional learning that analyzed the growth mindset as presented by Carol Dweck (2008). Participants became more open minded because they started to view their improvement in their own teaching as being directly related to practice and to overcoming obstacles.
Performance is carefully monitored

At the beginning of the workshop, participants were asked to self-evaluate themselves using a comprehensive teaching framework. This started the monitoring process. Teachers were then asked to analyze themselves on video on three occasions throughout the process. This allowed participants to monitor their progress in an on going basis. Participants were also asked to complete three peer observations which allowed them to gain a better perspective and gave them a comparison in which to gauge and monitor their progress. The incorporation of the written reflections after each video analysis and peer observation allowed participants to better monitor and evaluate their progress.

Karen was able to capture the essence of monitoring by stating, she wanted to record herself, “just to see where am I at with it right now and then again at the end of the month to say okay, was their continuing improvement or did I backslide? Then at the end of the next month do it again.” Here Karen is continuing the monitoring process on a regular scheduled basis. A majority of the participants (12/14) also stated that they would continue to video record themselves and refer back to the comprehensive teaching framework to ensure that they were continue to grow professionally.

Paige also added that the focused process allowed her to pick the two goals she was going to work on. This allowed her to record a skill she was “deliberately practicing” to see how she “was progressing.” This allowed her to see the areas she need to “tweak” and she ended by saying the focus of the process definitely helped. Again, this example shows how teachers were able to not only monitor their progress but used the monitoring to help make changes within their teaching.
Feedback is necessary / The ability to self-monitor is a necessity

The components, “feedback is necessary” and “the ability to self-monitor is a necessity” were combined because they are so closely related. Participants found one of the primary benefits of taking part in the study was the opportunity to get very specific feedback that they were able to use to improve their teaching. They also were able to improve their ability to self-monitor in order to gain feedback about their performance.

Participants were able to get feedback by reviewing the comprehensive teaching framework, self-assessment, video-analysis, peer observations and written reflections. A majority of the feedback they obtained was focused on very specific elements of teaching that each participant selected.

There was a great sense of frustration shared by the group in terms of their previous experience with the lack of useful feedback they obtained from formal evaluations. Tiffany stated, “Sometimes when you are observed, the feedback is not timely or useful” and Nancy followed with Nancy stated, “If feedback is too general, you can't improve.” Eleven members of the group stated either they were typically given the highest ratings during evaluation or that the comments from observers were rarely helpful.

However, the process utilized within the workshop helped teachers to feel that the feedback they obtained could help improve their teaching. Nancy talked about how the use of a framework helped her to better understand what was necessary to improve. This gave her a better understanding of expectations which allowed her to use the process to get specific feedback that led to improvement. This idea was seconded by Vanessa who stated the framework impacted the focus of the feedback. The framework gave specific feedback to her that was beneficial whereas when the she was observed during evaluations she only
received general feedback that was overarching and didn’t impact her teaching. While the framework offered the context for Vanessa, "the follow through and the focus were the things that really helped me improve."

This study was built on concept of self-generated feedback. The benefit of this is people are more receptive to correcting themselves when they are the ones doing the critiquing. Tiffany stated;

I don't think you feel threatened by your own feedback but then you have to be an honest person when you are doing self-evaluation because people can look in the mirror and think they are beautiful and they are not. You have to have honest feedback to yourself just as you hope to have honest feedback from somebody else.

Tiffany brings up the issue of honesty. In obtaining useful internal feedback, people need to be honest. However this is also an issue with external feedback. Feedback, if it is external or internal, needs to be accurate and specific to be helpful.

Because participants needed to self-assess their performance correctly in order to obtain useful feedback the incorporation of the video analysis was designed to help participants get a more accurate gauge of their self-assessment. It was the intent that watching videos of their own teaching led participants to a more honest assessment.

Patricia talked about the benefits of self-generated feedback for teachers. Patricia stated that when someone else is observing her that she often gets defensive if it is constructive criticism yet “if they don’t give enough constructive criticism, then I am like okay, you gave me no help whatsoever. You didn't tell me what I need to work on. I need to know what I need to work on. Don't tell me I am good. I need to know what I need to work on.” To Patricia, self-generated feedback is more meaningful:
Self-generated (feedback is more meaningful than external feedback) because I am in this room 180 days of the year. I know what is going on. To watch myself and know how I run my classroom, I know what I need to tweak and what I don't. That is going to be more impactful for me, whereas someone who comes in once a year, if that, and hasn't seen anything for the rest of the year, doesn't know my kids, or know how I run things necessarily, they are just seeing a quick snapshot in time. I know it is necessary but it is just a snapshot in time. It really doesn't get at it.

Patricia also stated that because she knew what to look for she was able to either see it in action or notice that it was missing. According to Patricia, “You are evaluating yourself.”

Ultimately however, Tiffany stated, “the only person who can change things are you. You can get all sorts of feedback in the world. If you choose not to do anything about it, then the feedback was useless. So [the process] was a really powerful way to look at yourself and to help you change.” The participants were able to get feedback that led to change because it offered a process that allowed teachers to not only become aware of needs but of how to address them as well.

The process may not be enjoyable but the pleasure comes from the development and enhanced performance

Participants found parts of the process utilized within the workshop to be uncomfortable. The consensus was participants felt overwhelmed when they initially completed the self-evaluation using a comprehensive teaching framework. Teachers also did not enjoy viewing themselves on video. Many of them also did not enjoy taking the time to write the reflections, though they later stated it was extremely useful to help them make
connections and to solidify what they had learned. However, all of the participants stated that the workshop was enjoyable and that they grew professionally from the experience.

Tiffany stated that the process at times was uncomfortable because “we are all our own worst critics.” The process of video recording forced participants to venture into areas that they would not have engaged if it were not for the workshop. Nancy stated that she didn’t care for the writing because she found it difficult but that the writing made her think about the process more and added, “I don't think it would have been a successful program had we not had to [complete the written reflections].” However, in each case participants stated that although the process wasn’t always enjoyable it provided them with meaningful feedback that allowed them to improve their teaching.

While all of the participants stated they improved their teaching, Patricia summarized the experience well in this quote. The process gave “me confidence in my teaching…gave me ideas…gave me confidence on trying to get better.” While some of the feedback and experiences were no enjoyable, this led to improved teaching.

**Expert performance is acquired gradually**

Obtaining expertise in any activity is a process that is gradual and takes a great deal of practice and effort. At the onset, as demonstrated by the complexity and length of the comprehensive teaching frameworks utilized by the workshop, becoming an expert teacher can appear to be an almost insurmountable task. However, because the process utilized within the workshop allowed teachers to identify a limited number of exact strategies and behaviors that they wanted to improve it made the process manageable and allowed teachers to be able to see improvement. The participants stated that they were able to make small changes in their teaching that made a difference. Vanessa stated her biggest “ah-ha” was
“You can make little tiny changes.” The process allowed her to identify little areas she could do different. Vanessa finished by stating, “I went in and made tiny adjustments that are going to make a huge impact for my kids.”

Paige added that the process showed her she “really has a lot to learn.” She also stated that the process “is really going to hone in my craft. It is going to allow me to get better at the other things that I am not so good at.” The increased awareness and focus of the process allowed teachers to make gradual progress and improvement.

Participants did see improvement in their teaching, however, each stated that it was a continuous cycle that needed to be ongoing. Sandra captured this sentiment by stating:

I definitely implemented the things that I wanted to implement and I saw the impact that I had on the clarity of my teaching and I saw the impact that that had on kids knowing what they were supposed to know. I felt really good about the pieces that I did implement, but again I just want more time to really see how that helps me develop over a longer period of time and develop in multiple areas.

Karen also stated that becoming an expert is an ongoing process. Karen stated “… good is the enemy of great…You should always be striving to get better….So even when you hit that top tier, there is still always room to get better.” The consensus among the participant was that the process implemented during the study made them aware of teaching expertise and also allowed them to improve in very specific skills which could lead to expertise in those specific areas. However, because of the complexity of teaching and the number of skills involved obtaining teacher expertise is a continuous and gradual process.

During the focus group discussions, each group was given a graphic that depicted the proposed model for developing teaching expertise. Consensus among each group was the
model was an accurate depiction of the process in which the participants engaged. However, both groups discussed the idea that expertise is truly never reached. The groups stated expertise in teaching is based on context. Because of the variables of changing students, programs, initiatives, curriculum and focus of that particular year, one could be considered an expert in one area one year and not in that same area the next year. That is why it is important for teachers to adopt the idea that they need to be continually growing and working on becoming a better teacher. The groups also discussed if the term “expertise” should be used because it implies an endpoint. The groups also stated that it needed to be clear that this was a continual process that is never finished. This is the essence of gaining expertise.

The following table displays the data reviewed delineated by the group in which the respondents participated. The next columns contain the total number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort). The final column gives the differences between the Danielson and Marzano cohort averages. The bolded numbers indicate the cohort with the higher participant average.
Table 41

*Finding from Research Question 5 (E1): Structured Reflective Process Impact on Key Components of Deliberate Practice*

<table>
<thead>
<tr>
<th>Key Components of Deliberate Practice</th>
<th>Danielson Cohort References</th>
<th>Danielson Cohort Participant Average</th>
<th>Marzano Cohort References</th>
<th>Marzano Cohort Participant Average</th>
<th>Difference Between Cohort Averages</th>
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<tbody>
<tr>
<td>Goal is improved performance</td>
<td>10</td>
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<td>Performance is carefully monitored</td>
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<td>The process may not be enjoyable but the pleasure comes from the development and enhanced performance</td>
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<td>1.60</td>
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<td>.78</td>
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</tbody>
</table>

Note: Bolded numbers signify a higher participant cohort average

The structured reflective process that was incorporated during the study generated responses from participants that addressed the ten identified key components of deliberate practice. Each cohort had participants respond a minimum average of at least one response per key component. The largest discrepancies between the cohorts were the following:

1. Skills to be developed should be based on specific needs. The Marzano Cohort responded an average of 1.13 responses more per cohort member.
2. Sustained efforts of repetitive of specific tasks are designed to improve weakness. The Marzano Cohort responded an average of 1.10 responses more per cohort member.

3. Performance is carefully monitored. The Marzano Cohort responded an average of 2.43 responses more per cohort member.

In each instance, the Marzano Cohort referenced the deliberate practice key component on a more frequent basis. The probable explanation is that each of the components listed reference specific needs and specific tasks. The third item selected in reference to monitoring is also related to specificity. The more specific an item is measured, the easy it is to monitor. For example, it is easier to monitor the success rate of either “Asking questions of low-expectancy students,” or “Probing incorrect answers with low-expectancy students,” (examples from elements contained in the Marzano Observational Protocol) than it is to measure “Expectations for learning and achievement” (an example from the Danielson Framework for Teaching). The specificity of the Marzano Observational Protocol is more conducive to the concepts associated with deliberate practice.

Finding (E2) The structured process supports teacher growth

The structured reflective process supports teacher growth and teacher supervision and evaluation. One of the initial driving forces behind this project was to find a process that aided teacher supervision and evaluation. As detailed in the literature review, many of the current practices of teacher supervision and evaluation are ineffective and inefficient. Thus this project attempted to implement a process that would not replace formal teacher evaluations but would help teachers and administrators incorporate a sustainable program
that could improve current teaching and aid in the evaluation process by creating awareness of expectations and by offering tools to improve teachers’ current practices.

Teachers expressed that the current mode of teacher evaluation was typically not useful. Patricia stated that “In the past I had one of the administrators come in three times in the last week of school to get all of the write-ups in. They just switched a name on a paper, so this is much more beneficial when it comes to reflection on actual teaching.” While this example was obviously poor implementation of conducting observations, even when done correctly teachers, stated that the process was not useful.

Karen stated that observations lack feedback that she could use to improve her teaching. The observations left her wanting more feedback because the only feedback she received was “great job, great lesson, great transitions.” This left Karen asking, “What made it great? Was I doing A, B, and C or I don't know.” However, Karen stated that the process utilized within the study, “helped me just really be able to focus in on certain skills and I think it just showed me that I am not as great as people have told me” but now she has the tools to become the teacher her formal evaluations labeled her as.

Vanessa also talked about the lack of feedback that could impact her performance that she had received in previous evaluation cycles. Vanessa also stated that this process increased teacher ownership.

I think it is a good way to make people feel responsible for their own instruction. I have been somebody who is never ever in 15 years of doing this ever gotten anything but the highest marks when someone else evaluated me, but again nobody else will go into my room and say well you know if you just would have done this at this point, that probably would have hit home your point a little bit better. So, as a professional
it is important that I felt respected enough to say we trust you to go into your classroom and figure out what to do differently.

Vanessa also stated that this process is a way to help create a more accurate description of the job that is being done in the classroom. This process could be used as an “opportunity to write an evaluation of yourself that will help you in your teaching and be an accurate picture of the job that you are doing in the classroom.” Vanessa ended by saying that if this was done collaboratively with an administrator “we would all be better off.”

The beginning of the evaluation process should be to assess current performance. Consensus among the participants was this process allowed them to better understand how effective their current performance is. Eva stated, “it was helpful for me in realizing how many ways there are to be an effective teacher and ways I didn't see or didn't know about and it helps me to see exactly where I am in certain areas.” Sustainability and efficiency is also a concern with evaluation programs. This process allowed teachers to be able to identify the needs of participants. Vanessa stated if teachers could tell administrators what they do and do not need help with, then administrators, “could actually develop my skills in a way that you can't do right now in the structure that we have. One person can't manage that for 60 some odd people.”

Consensus among the participants was the process allowed them to become more familiar with the evaluation process and gave them the tools need to assess and improve their performance. Eva stated that this was a good way of evaluating herself and that she would continue the process “because I have an idea of how to keep this going and keep improving.” Patricia also stated that compared to the current evaluation process she found “it much more beneficial” and that “this could help me become a better teacher.”
Similar to Patricia, Paige discussed the benefits of this process and how it was even more beneficial than going through the process to get her National Board Certification.

This would be a great program. I would love to be evaluated this way as opposed to being evaluated the typical way. To me [the current process] just seems so vague and here we have all of the tapes we can speak from what we saw, what we observed, how we did it, and just become better teachers. I feel that this was extremely beneficial. I found this really a fabulous experience far better than when I was going after my [national] boards [certification].

Throughout this section, an underlying theme has been the teacher’s desire for a process which makes them a more active participant in the evaluation process. The participants understood that this process couldn’t completely replace the evaluation process, but that it could become a major component that helped teachers to improve. Nancy stated “to grow professionally you need to have a chance to be evaluated, to have a chance to be observed; you need to do it on your own as well as have others come see you.” Because Nancy worked in depth with the framework and had a clear understanding of the expectations she felt more comfortable and confident having conversations with her administrator. Nancy summarized the process by saying, “I feel more self-empowerment because I feel prepared.” The process also allowed Nancy to feel more comfortable “with accepting where I am at but excited for what can come next”. This process not only helped teachers to improve, but prepared them to better understand the process and expectations of formal teacher evaluation.

The following table displays the data reviewed delineated by the group in which the respondents participated. Table 42 contains the number of participants in which this finding was confirmed, the percentage of participants in which the finding was confirmed, the total
number of occurrences the finding was confirmed, the finding was confirmed, and the average number of times a cohort participant referred to the finding (or total occurrences divided by participants in the cohort).

Table 42

*Finding from Research Question 5 (E2): Structured Reflective Process Supports Teacher Growth and Teacher Supervision and Evaluation*

<table>
<thead>
<tr>
<th></th>
<th>Confirmed / Possible</th>
<th>Frequency %</th>
<th>Total Occurrences</th>
<th>Cohort Participant Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>4/5</td>
<td>80.0%</td>
<td>14</td>
<td>2.80</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>5/8</td>
<td>62.5%</td>
<td>26</td>
<td>3.25</td>
</tr>
<tr>
<td>Totals</td>
<td>9/13</td>
<td>69.2%</td>
<td>40</td>
<td>3.08</td>
</tr>
</tbody>
</table>

The structured reflection process allowed teachers to increase their knowledge of expertise teaching. The process was viewed as a tool that allowed teachers to focus on selected aspects of their teaching and to improve their teaching through increased awareness, and implementation of new or previously abandoned strategies. Across both cohorts, participants stated the process was effective as it delivered feedback that teachers found timely and useful. The practice of selecting two to three areas of focus allowed teachers to hone in and work to improve these specific areas which made the process manageable and effective. Teachers also saw this as tool that was more effective than the “traditional” teacher evaluation process at improving their performance. Teachers felt empowered and more engaged by the process because it honored their work and opinions as professionals.

**Summary of themes related to research question five**

Participants were asked in their interview and focus group if utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching
via video recording and reflective peer observations, facilitate deliberate practice? In what ways? The data analysis revealed that all ten components of deliberate practice that were previously identified were addressed through various means of the workshop. Participants also reported that this process helped to support teacher growth and teacher evaluation.

Once again, the most significant finding from research question five was how the specificity of the Marzano Observational Protocol aligned more with the concepts of deliberate practice. While the structured reflective process incorporated during the workshop impacted participants fairly equally across both cohorts, differences were noticeable and consistent when the concept of specificity was used as a measurement. Both cohorts were able to benefit from participating in the workshop, however based on participant response it was discovered that the Marzano Cohort was more likely to benefit because of the specificity of the Marzano Observational Protocol.

**Summary of themes generated from Focus Group**

During the focus group stage of the data collection process, questions were generated around the findings that were generated from the individual interviews. Participants were asked questions to confirm these themes. The focus groups allowed participants an opportunity to describe their individual journey and the impact that the workshop had on their growth as teachers. As part of the focus group, participants were given a copy of the model designed by the researcher to offer input on the accuracy and limitations of the proposed model.

The findings from the focus group confirmed all of the findings from the interviews. The focus groups revealed two more significant findings:

1. the collaboration and discussion with peers was valuable,
2. expertise cannot really be reached because it should be viewed as a continual process.

**Discussion and collaboration with peers was valuable**

Both focus groups stated that the time they spent collaborating with peers was important. The peer sharing allowed teachers an opportunity to learn from one another and allowed them to put their experiences in perspective. One of the key aspects of the peer discussion was the ability to use a common language of the teaching framework as well as a common language about metacognition. The common language allowed participants the ability to be more specific and accurate in their communication which led to deeper learning and understanding.

The Marzano Cohort stated they were able to gain valuable information and data about their experience but the ability to talk with others in a group setting helped them to solidify their learning and to make the feedback and overall experience more meaningful. Both cohorts also commented on the idea that when there are other people analyzing themselves critically they tend to have the same thoughts, questions and concerns. The Marzano Cohort stated that this particular process created a “mutual, safe, and risk free conversation” that allowed teachers to be genuine in their conversations about their teaching. The Danielson Cohort also stated that the process, “allowed us the opportunity to exchange ideas and to get others viewpoints about what was happening in the classroom everyday.”

Each focus group stated the peer collaboration helped make the process more meaningful. The ability to discuss teaching practices in a common language as well as discussing the several components of metacognition allowed participants to be more
analytical about their practice which allowed them to generate more specific and more useful feedback.

**Expertise cannot be reached because it should be viewed as a continual process**

The last question for the focus groups centered around their perceptions of the model that was created as a result of this study. As previously presented, Figure 7 has been included here. The figure was given to the participants and they were asked to comment on the accuracy of the model.
Figure 7: Proposed Fostering Teacher Growth Preliminary Model represents findings based on the literature review.

Both focus groups stated that the model was a good representation of their experience. The groups each commented on the importance of having a foundation that was rooted in the concepts of expertise development and growth mindset. The background knowledge that these ideas presented helped participants to better conceptualize the entire process. The Danielson Cohort went so far to say, “districts are going to have to really focus on that bottom level to get success at the top.”
Both focus groups also stated that expertise isn’t really attainable because teaching is ever changing. The process needs to be about continual growth. To the participants, the goal was never to reach the top but to remain in the constant cycle of growth. Once a teacher became an expert in an area, they needed to move on to another area or skill to develop. The Marzano Cohort stressed, “at no point are you ever really done improving. Even professional basketball players practice everyday.” The Marzano Cohort stated that teachers are never in the expertise state because teaching is so dynamic and that the students can change the context on a continual basis.

**Document Review Findings**

The documents that were submitted during the workshop were to gain insight on the impact of the workshop and the differences within the cohorts. While all 72 documents collected were analyzed, only portions of the documents that offered important findings were reported. The document analysis is reported in three separate sections. The first section focused on the findings from the video analysis reflections and compared findings of each cohort. The second section focused on the findings from the peer observation reflections and compared findings of each cohort. The third and final section compared the findings from the final reflection.

**Document Review of Video Analysis Written Reflections**

The document review of the video analysis supported the finding (B2) which was “The Marzano Cohort identified specific elements of improvement whereas the Danielson Cohort identified more general areas of improvement.” The document review revealed that the focus identified for improvement was much more general across the Danielson Cohort. Table 43 reveals the total number of video analysis reflections and the number of foci that
were identified during the video analysis. The Danielson Cohort identified a total of 19 foci in 13 video analysis reflections. Seventeen of the foci identified were deemed general in nature whereas two were categorized as specific. Only 11% of the foci identified were considered specific. The Marzano Cohort identified a total of 38 foci in 19 video analysis reflections. Eleven of the foci identified were deemed general in nature whereas 27 were categorized as specific. The data reveals that 71% of the foci identified were considered specific.

Table 43

*Finding from Document Analysis: Foci Identified During Video Analysis of Either General Or Specific Focus*

<table>
<thead>
<tr>
<th></th>
<th>Total Video Analysis Reflections</th>
<th>Total Foci Identified</th>
<th>Examples of General Focus</th>
<th>Examples of Specific Focus</th>
<th>Video with a Specific Focus Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danielson Cohort</td>
<td>13</td>
<td>19</td>
<td>17</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Marzano Cohort</td>
<td>19</td>
<td>38</td>
<td>11</td>
<td>27</td>
<td>71%</td>
</tr>
<tr>
<td>Totals</td>
<td>32</td>
<td>57</td>
<td>28</td>
<td>29</td>
<td>51%</td>
</tr>
</tbody>
</table>

The following table will provide examples of the foci identified by each cohort. For this chart, data was presented exactly as it was identified within the documents. Table 44 delineates the different foci that were identified by participants during the video analysis.
Table 44

*Finding from Document Analysis: Samples of Foci Identified During Video Analysis From the Danielson and Marzano Cohorts*

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional grouping</td>
<td>Providing clear learning goal</td>
</tr>
<tr>
<td>Participation</td>
<td>Presentation and management of an activity that specifically tied to learning objective</td>
</tr>
<tr>
<td>Engagement</td>
<td>Teacher notices when specific students are not engaged</td>
</tr>
<tr>
<td>Transitions</td>
<td>Teacher uses responses rates to maintain engagement</td>
</tr>
<tr>
<td>Management of instructional groups</td>
<td>Supplied more immediate feedback</td>
</tr>
<tr>
<td></td>
<td>Teacher engages in activities that help to link old content to new content</td>
</tr>
</tbody>
</table>

A general explanation may be that the Danielson Framework for Teaching labels its elements in a much more general manner whereas the Marzano Observational Protocol is much more specific in its labeling. While this may be an explanation, the simple design difference within the Marzano Observational Protocol appears to narrow the focus in such a manner that allows participants to concentrate their improvement efforts. Because the focus was more specific, the Marzano Cohort also identified an average of 2.0 foci per video analysis whereas the Danielson Cohort identified 1.5 foci per video analysis. This finding can be explained by using the samples from Table 45. If a Danielson Cohort member identified “engagement”, a Marzano Cohort counterpart may select “teacher notices when specific students are not engaged”, as well as “teacher uses responses rates to maintain engagement”. In both instances, the participant was interested in studying engagement but the Marzano Cohort participant was able to create specific segments within engagement to study. While the Danielson Cohort participant is still able to look at specific areas within “engagement”, it
becomes incumbent on the user to identify the separate areas. However, the Marzano Observational Protocol helps to facilitate focus because of its design.

The next question from the video analysis reflection asked participants to identify what was learned about their own teaching. The participants across both cohorts were able to identify several instances in which they learned something about their own teaching. Table 45 provides samples of representative answers given from both cohorts. While both cohorts gave similar answers and in some instances ("Pacing was good.") the exact same answer, the Marzano Cohort was more specific in identifying what was learned from the video analysis. While it may be beneficial to know that the class was unorganized or that there was appropriate eye contact (sample answers from the Danielson Cohort) it would probably be more helpful for a teacher to notice that they failed to establish clear learning goals or that the teacher was more effective in helping students interact with new knowledge (sample answers from the Marzano Cohort).
Table 45

*What Was Learned From Video Analysis?*

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need to allow students more opportunity to share answers</td>
<td>Having clear objectives, activities, and assessments makes it easier to assess student growth</td>
</tr>
<tr>
<td>Spend more time with lower tier students</td>
<td>Didn’t provide students with recognition of their current status</td>
</tr>
<tr>
<td>Informing students of expectations was vital in achieving outcomes</td>
<td>Didn’t establish clear learning goals</td>
</tr>
<tr>
<td>Pacing was good</td>
<td>Pacing was good</td>
</tr>
<tr>
<td>Class was unorganized</td>
<td>Revisiting and having students restate expectations eliminated wasted time</td>
</tr>
<tr>
<td>Used good eye contact</td>
<td>Missed simple opportunities for students to take ownership of their own learning</td>
</tr>
<tr>
<td></td>
<td>Teacher was effectively helping students interact with new knowledge but needs to have students stop more and summarize</td>
</tr>
</tbody>
</table>

These answers also support the previous finding. Because the Marzano Observational Protocol is more specific it is more probable to have participants generate more specific feedback. The Danielson Cohort was able to generate valuable feedback that impacted their teaching. In some cases, the feedback generated by the Danielson cohort was very specific. However, because the design of the Danielson Framework for Teaching is more dependent upon the user to either be knowledgeable or make decisions within the framework it is more likely to generate more general feedback.

The final question from the video analysis reflection asked participants to identify new strategies or different strategies they would implement as a result of analyzing the video. The participants across both cohorts were able to identify several instances in which they learned about their own teaching. Table 46 provides samples of representative answers given from both cohorts.
Table 46

*New Strategies to be Implemented As a Result Of Analyzing Video Of Own Teaching*

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrange physical layout of classroom that is more conducive to think, pair, share</td>
<td>Display daily objective on board</td>
</tr>
<tr>
<td>Use infractions to track classroom behavior</td>
<td>Create individual weekly goal with each student for reading, writing and math</td>
</tr>
<tr>
<td>Emphasize point without creating extra vocabulary</td>
<td>Review expectations with students</td>
</tr>
<tr>
<td>Give good feedback</td>
<td>Use key word to gain students attention</td>
</tr>
<tr>
<td>Move around room</td>
<td>Students write objective in their own words</td>
</tr>
<tr>
<td>More planning of the wording for giving directions</td>
<td>Pause to allow students to summarize</td>
</tr>
<tr>
<td>List commonly asked questions on board</td>
<td>Increase opportunities for reciprocal teaching</td>
</tr>
</tbody>
</table>

This question produced the most similar results. Both cohorts were able to generate rather specific strategies to be implemented to address their identified needs. An explanation for the similarity is that teachers, in most cases, will be able to generate a specific strategy when asked. The question itself forced participants to generate a possible alternative strategy. The identification and specificity of the new strategy is dependent on the participant as well as the framework. The difference between the examples is that the Marzano Cohort examples are more consistent in language and conform to the Marzano Observational Protocol whereas the Danielson Cohort examples are less reflective of the word choice used in the Danielson Framework for Teaching. Thus the through the video analysis, both cohorts were able to generate useable feedback, but the Marzano Cohort answers were related more closely to its respective rubric.

**Document Review of Reflective Peer Observation Written Reflections**

The document review of the peer reflective observations also supported the finding (B2) which was “The Marzano Cohort identified specific elements of improvement whereas
the Danielson Cohort identified more general areas of improvement.” The document review revealed that the focus identified for improvement was much more general across the Danielson Cohort. Table 47 reveals the total number of reflective peer observations completed and the number of foci that were identified during the reflective peer observations. The Danielson Cohort identified a total of 13 foci in 11 video analysis reflections. Twelve of the foci identified were deemed general in nature whereas one was categorized as specific. Only .08 of the foci identified were considered specific. The Marzano Cohort identified a total of 31 foci in 18 video analysis reflections. Twelve of the foci identified were deemed general in nature whereas 19 were categorized as specific. The data reveals that .61 of the foci identified were considered specific.

Table 47

<table>
<thead>
<tr>
<th>Finding from Document Analysis: Particular Focus Identified During Reflective Peer Observation of Either General or Specific Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Peer Observation Reflections</td>
</tr>
<tr>
<td>Danielson Cohort</td>
</tr>
<tr>
<td>Marzano Cohort</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>

Table 48 delineates the different foci that were identified by participants during the video analysis. The findings here are also very similar to the findings from the samples from the video analysis reflection. The Danielson Cohort samples were much more general in nature in comparison to the Marzano Cohort. Again, the results of this can be traced back to the specificity of the design of the Marzano Observational Protocol.
Table 48

*Finding from Document Analysis: Samples of Foci Identified During Reflective Peer Observation From the Danielson and Marzano Cohorts*

<table>
<thead>
<tr>
<th><strong>Danielson Cohort</strong></th>
<th><strong>Marzano Cohort</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and preparation</td>
<td>How to point out student success</td>
</tr>
<tr>
<td>Monitoring of student behavior</td>
<td>How to process and preview new information</td>
</tr>
<tr>
<td>Manage classroom procedure</td>
<td>Organization of intervention group with regards to content, pacing and instruction)</td>
</tr>
<tr>
<td>Question and discussion techniques</td>
<td>Communication of goals, objectives and student progress</td>
</tr>
<tr>
<td>Instructional grouping</td>
<td>Organization of intervention group with regards to content, pacing and instruction)</td>
</tr>
<tr>
<td>Engaging students in learning</td>
<td>Fostering independence with student learning</td>
</tr>
</tbody>
</table>

The next question from the reflective peer observation reflection asked participants to identify what was learned about their own teaching from observing a peer teach. The participants across both cohorts were able to identify several instances in which they learned about their own teaching. Table 49 provides samples of representative answers given from both cohorts. Again, similar to the findings from the video analysis reflection, the Marzano Cohort produced more specific answers. While both cohorts generated feedback that could be useful, the specificity of the Marzano Cohort feedback better aligns with the tenants of deliberate practice and development of expertise which is based on very specific feedback. Both cohorts reported that they generated useful and helpful feedback. Again, some of the Danielson Cohort responses reflect fairly specific feedback such as, “the incorporation of more peer learning.” However, the probability of generating specific feedback is higher within the Marzano Cohort.
Table 49

*What Was Learned From Reflective Peer Observations About Participants' Own Teaching?*

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wants to incorporate more peer learning</td>
<td>Need more opportunities to let students work in groups</td>
</tr>
<tr>
<td>Need to move around more during small group activities</td>
<td>It is difficult to foster a lot of independence without students perceiving teacher as being “cold”</td>
</tr>
<tr>
<td>Need an easier way to manage and document student behavior</td>
<td>Need to provide more consistent and effective feedback</td>
</tr>
<tr>
<td>New ways to build understanding before reading</td>
<td>Need to get better at using daily questions as a warm-up to connect prior knowledge</td>
</tr>
<tr>
<td>Needs to ask questions as an ongoing assessment</td>
<td>Need to communicate learning objectives in a student friendly manner</td>
</tr>
<tr>
<td>Want to assess her current effectiveness with a variety of questioning techniques</td>
<td>Need to find ways to hold non-contributors to classroom discussion accountable</td>
</tr>
</tbody>
</table>

The final question from the video analysis reflection asked participants to identify new strategies or different strategies they would implement as a result of analyzing the video. The participants across both cohorts were able to identify several instances in which they learned something about their own teaching. Table 50 provides samples of representative answers given from both cohorts.
Table 50

*New Strategies to be Implemented as a Result Of Reflective Peer Observations*

<table>
<thead>
<tr>
<th>Danielson Cohort</th>
<th>Marzano Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track student behavior with a “clipboard system” to</td>
<td>Use a summative activity on a regular basis</td>
</tr>
<tr>
<td>track consequences</td>
<td></td>
</tr>
<tr>
<td>Ten minutes of lecture followed by two minutes of</td>
<td>Increase wait time</td>
</tr>
<tr>
<td>reflection</td>
<td></td>
</tr>
<tr>
<td>Find new ways to introduce reading</td>
<td>Develop more in class ways to track progress</td>
</tr>
<tr>
<td></td>
<td>during activities</td>
</tr>
<tr>
<td>Model critical thinking</td>
<td>Communicate and discuss objectives in student</td>
</tr>
<tr>
<td></td>
<td>language</td>
</tr>
<tr>
<td>Differentiate instruction</td>
<td>Provide ways for students to track their progress</td>
</tr>
<tr>
<td></td>
<td>through rubric and graphs</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Give students instructions to bring two or three</td>
</tr>
<tr>
<td></td>
<td>questions with them to start class discussion</td>
</tr>
</tbody>
</table>

Again, these results were also very similar to the findings from the video analysis reflections. This question produced the most similar results. Both cohorts were able to generate rather specific strategies to be implemented to address their identified needs. An explanation for the similarity is that teachers, in most cases, will be able to generate a specific strategy when asked. The question itself forced participants to generate a possible alternative strategy. The specificity of the new strategy is placed completely on the ability of the participant. The difference between the examples is that the Marzano Cohort examples are more consistent in language and form to the Marzano Observational Protocol than the Danielson Cohort is to the Danielson Framework for Teaching. Thus the Through the video analysis, both cohorts were able to generate useable feedback, but the Marzano Cohort answers were related more closely to its respective rubric.
Document Review of Final Reflection

At the end of the study, participants were asked to summarize their experience by completing a final reflection. The final reflection was designed to allow participants an opportunity to share their opinions on the essential learnings, the impact the workshop had on their current teaching, their growth and how they will apply what they learned along with some goals for the future. Participants were asked to respond to the following questions.

1. As you reflect on this collegial study, what were two or three of your essential learnings? (What big ideas or insights did you discover?)

2. How has this experience changed your current teaching?

3. Compare your initial self-evaluation with your final evaluation using the Marzano Observational Protocol or Danielson Framework for Teaching. Identify two to three areas that you can focus on to improve your teaching (specific subsets of design questions). How did the protocol contribute to your thinking about this specific practice?

4. As you plan future lessons, what insights have you developed that might be applied to new lessons?

5. What are your current goals:
   - **Short term** (in the next nine weeks)
   - **Medium term** (within the next year)
   - **Long term** (within the next three years)

The following section will discuss the findings from the first two questions. The findings from questions three, four and five were not included because the findings didn’t offer any new insights on findings that have already been discussed.
Essential learnings from the workshop

The document analysis revealed a consistent theme throughout both cohorts about the value of utilizing a comprehensive teaching framework, receiving timely feedback and the positive impact of having a narrowed focus in which to focus improvement efforts. Participants also stated the impact of having a growth mindset helped them to approach the process in a different manner. Instead of “merely trying to get it done, you aim to get better at it with a different mindset.”

Participants also stated that better understanding developing expertise and deliberate practice in the context of improved teaching helped them to be able to improve. Vanessa, from the Marzano Cohort, stated that learning “how making little changes to the delivery of instruction can have a huge impact.” Rachel, from the Marzano Cohort, succinctly stated, “A teacher isn’t born a teacher. Like any other profession it requires many hours of practice and hard work in order to perfect the skill.” Finally, Paige, from the Marzano Cohort, summarized her experience by stating:

After taking this workshop I have walked away with very valuable knowledge about my own teaching and how to improve my craft… the tools given to us the rubric and research as to why we do these things helped me to focus on the smaller details that make all of the difference.

Again, overall the participants focused on the benefits of having a narrow focus and tools that allowed them to practice and evaluate their progress.
The impact on current teaching

Question two from the final reflection asked participants to state how the experience impacted their current teaching. The participants consistently referenced that the process allowed them to view their teaching from the eyes of students. This new perspective allowed them to see the areas of their teaching which needed to improve. The participants also referenced how their ability to reflect effectively led to a change in their teaching behaviors.

Sandra from the Marzano Cohort, stated:

I have found a couple specific areas to focus on which led to actual change on my part. I always am looking for ways to change but have often evaluated my teaching in a way that was too broad, leading to little actual change.

As has been previously discussed, the success was rooted in the specificity of the comprehensive teaching framework and the limited focus which allowed teachers to attempt to improve very specific elements of their teaching.

Participants went beyond discussing how specific teaching strategies were implemented and discussed how continuing the process and using the tools would continue to impact their future teaching. Also Rachel, from the Marzano cohort stated:

Through this experience I have learned how to reflect on certain aspects of teaching on a deeper level. In the past I would have reflected on a lesson and thought, it was a good or not so good lesson and that was it. Now I can look at a lesson and truly reflect on one aspect of it, such as why the children weren’t actively engaged, what I was doing in that moment, and what I might need to change in the future.

Rachel’s answer moves through the stages of metacognition. She first mentions picking a focus or goal (managing) assessing her success (monitoring) and making the appropriate
changes (modifying). By improving her metacognitive skills, Rachel will be able to participant in a cycle of continuous improvement.

Finally Samantha, from the Danielson Cohort, stated that there is a need to have an understanding of the foundational elements on which the process is built.

Due to the pressures of the job, it is very easy to forget that we are professionals, want to continue to be the best they can be for the students. With that in mind, adult learning theories of investigating ones own teaching through self-assessment, reflection, and professional conversation are essential

Samantha stated that having basic background knowledge in the areas adult learning, self-reflection, and how to self-assess are essential to the process. Other participants also stressed that it was important to have working knowledge of metacognition, expertise and deliberate practice as well as growth mindset. This background knowledge allowed participants to build a framework and give a context to the process.

**Summary of Results**

This chapter presented the findings from the study. This study found the impact of a potential teacher supervision and evaluation process that focused on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework.

Based on the preceding presentation and summary of data generated by the study, a summary of conclusions will now be presented. To help better understand the findings the components of self-managing, self-monitoring and self-modifying will be presented. The following table displays the key components of each of the concepts of self-managing, self-
monitoring and self-modifying as presented by Elisson and Hayes (2003), who are associates of Costa and Garmston.

Table 51

*Key components of self-managing, self-monitoring and self-modifying*

<table>
<thead>
<tr>
<th>Self-managing</th>
<th>Self-monitoring</th>
<th>Self-modifying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articulate goals and intentions</td>
<td>Draw on self-knowledge as a checkpoint for what is working and not working</td>
<td>Evaluate actions and decisions against intentions and goals</td>
</tr>
<tr>
<td>Clear vision</td>
<td>Requires attention to one’s metacognition and external cues</td>
<td>Requires reflection and introspection</td>
</tr>
<tr>
<td>Strategic planning for goal achievement</td>
<td>Constantly comparing current conditions to intended plan</td>
<td>A disposition toward growth serves the self-modifying person</td>
</tr>
<tr>
<td>Specificity about indicators of success</td>
<td>Requires attention to alternatives and choice making in the moment</td>
<td>Construct meaning from experience and commitment to make changes based on new learning</td>
</tr>
<tr>
<td>Deliberate in considering prior knowledge and experiences</td>
<td>Focus through attentive listening and observing</td>
<td>Self-modification draws from the self-monitoring process to focus forward and deliberate on future actions</td>
</tr>
<tr>
<td>Don’t leap to action, gather information and consider options and relevant data</td>
<td>Constant vigilance of oneself and one’s environment</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusions from research question one**

Research question one asked: To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of
one’s own teaching? The study revealed the use of a comprehensive teaching framework did help participants to facilitate the self-management, self-monitoring and self-modification of their own teaching. Although participants were initially overwhelmed by the totality that the comprehensive teaching frameworks presented this barrier was overcome by virtue of time and the perceived improvement of their teaching. Participants were able to become more critical of their own and their peers teaching without becoming judgmental. The ability to self-evaluate helped to motivate and empower participants.

Conclusions from research question two

Research question two asked: To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification? The study revealed that the use of video analysis did help participants to facilitate the self-management, self-monitoring and self-modification of their own teaching. Participants were able to generate timely, non-threatening feedback that allowed them to make observations and changes in their teaching. The cohort that utilized the Marzano Observational Protocol was more likely to identify specific elements of improvement versus more general areas that were identified by the cohort that utilized the Danielson Framework for Teaching.

Conclusions from research question three

Research question three asked: To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring and self-modification? The study revealed that participating in reflective peer observations did help participants to facilitate the self-management, self-monitoring and self-modification of their own teaching. The study revealed that having a limited but specific focus as determined by a comprehensive teaching
framework helped participants to gain more meaning from their observations. The ability to participate in reflective peer observations allowed participants the opportunity to put the comprehensive teaching frameworks into context. Participants were able to see the frameworks being put into practice which helped to stimulate praxis within their own teaching.

**Conclusions from research question four**

Research question four asked: Were the perceptions of teacher’s performance impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways? The study revealed that the combination of tools combined with a structured reflective process led to perceived improved teaching. The implementation of a process that limited the scope of areas designated for improvement was instrumental in the improvement efforts. The use of the structured process allowed participants to make improvements in their awareness of expert teaching and also to actually modify and improve their teaching.

**Conclusions from research question five**

Research question five asked: Did utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations, facilitate deliberate practice? In what ways? The study revealed that all ten key components of deliberate practice were impacted by the process utilized within the study. The finding was stronger within the cohort that utilized the Marzano Observational Protocol due to the specificity of the framework. The specificity of the Marzano Observational Protocol is more aligned with the concepts associated with deliberate practice.
**Forecast Chapter Five**

Chapter Five will present a summary of the findings related to the research purpose and reviewed literature. This chapter will also offer conclusions and implications of the study for practice; for leadership for the advancement of learning and service; and for further research.
Chapter Five: Discussion

**Review of Study**

The purpose of this study was to discover and describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework.

Chapter One introduced the research through description of the background, purpose, approach, significance, delimitations and limitations, and vocabulary of the study. Chapter Two included a review of literature about theory and research related to the study in the areas of expertise development, effectiveness of teacher supervision and evaluation, comprehensive teaching frameworks, video analysis of teachers own teaching, peer observations, and finally reflection and metacognition. Chapter Three detailed the research questions addressed in this study as well as the study’s methodology and design. Chapter Three also provided detailed information on the site and sample, data collection techniques, data analysis techniques, the logistics of the study, and a summary of the research design. Chapter Four included a presentation and summary of data generated by the study design in alignment to the each of the research questions. This final chapter will include a summary and discussion of the findings related to the research purpose and reviewed literature. Chapter content will also discuss conclusions and implications of the study for practice, leadership for the advancement of learning and service, and research.
Discussion of Conclusions

Conclusions Related to Research Purpose

Purpose of the Study

The purpose of this study was to describe the impact of a potential teacher supervision and evaluation process that focuses on developing teachers through metacognition supported by self-video analysis, reflective peer observations and a comprehensive teaching framework. The research question guiding this study was: How does a comprehensive teaching framework, combined with self-video analysis and reflective peer observations impact metacognition and the development of teacher expertise? Related questions that guided this study were:

1. To what extent did the use of a comprehensive teaching framework facilitate self-management, self-monitoring and self-modification of one’s own teaching?
2. To what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification of one’s own teaching?
3. To what extent did the analysis of reflective peer observations facilitate self-management, self-monitoring and self-modification of one’s own teaching?
4. Were the perceptions of teacher’s performance impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations? In what ways?
5. Did utilizing a structured reflective process involving a comprehensive framework to analyze a teacher’s own teaching via video recording and reflective peer observations facilitate deliberate practice? In what ways?
The next sections will discuss the findings as they are related to each research question.

**Study Finding/Conclusions About Research Question One**

The first question asked to what extent the use of a comprehensive teaching framework facilitated self-management, self-monitoring and self-modification of one’s own teaching. The data analysis led to the conclusion that the use of a comprehensive teaching framework did help participants to facilitate the self-management, self-monitoring and self-modification of their own teaching. Specifically, frameworks helped increase awareness of expert teaching, clarified expectations, and frameworks helped to identify areas of focus and which allowed for more focused feedback. The specificity of the Marzano Observational Protocol allowed for better monitoring, and modifying of teaching practices.

Although participants were initially overwhelmed by the totality that the comprehensive teaching frameworks presented, this barrier was overcome by providing time and support that allowed participants to completely comprehend the comprehensive teaching framework and its implications. Also, the perceived improvement of the participants teaching helped participants accept the concepts and strategies presented within the comprehensive teaching frameworks. For many teachers, this was the first time they had taken the time to evaluate their daily practice in a comprehensive manner. By virtue of rating themselves on very specific components of their daily job, they become more aware of the components of expert teaching and also of the expectations for quality practice in their district. While this experience caused participants to feel overwhelmed at the onset of the study, the utilization of a comprehensive teaching framework for self-evaluation helped to define “expert teaching.” The use of a comprehensive teaching framework during peer observations also put “expert teaching” into an everyday context that teachers were able to
better understand. Because the teachers were asked to examine their daily practice on very specific components and behaviors they were able to rate their teaching in a very non-judgmental manner. For example, it may be difficult for a teacher to accept that they are below average in a general area of teaching such as planning; however, it is easier to accept that a specific area within planning is below average. This pinpoints the area to improve which allows the teacher to focus his or her efforts without singling them out as a “bad teacher.”

Teachers also felt empowered by being able to self-evaluate using a comprehensive framework because they were able to identify and examine the areas of their teaching that needed improvement. Essentially, teachers were able to setup a self-improvement plan. Empowerment came from better knowing and understanding the comprehensive framework on which they could be evaluated. Empowerment also came in the form of choice on what to specifically focus on and improve. Background knowledge and choice were critical factors that improved motivation and buy in for teachers because they felt more in control of the process. Specifically the following three factors impacted the overall experience of the teachers: 1) background knowledge about how expertise is developed, 2) background knowledge about growth mindset, 3) choice on which specific strategies or behaviors to focus on for improvement.

Additionally, one of the reoccurring findings of the study that addressed multiple research questions was the specificity of the Marzano Observational Protocol. The specificity of the Marzano Observational Protocol allowed for participants to more easily monitor and modify their practice because it isolated behaviors and generated focused feedback. When feedback is more focused, it is more likely to be utilized because there is no
confusion about the context or purpose. Finally, the shared vocabulary of the comprehensive teaching framework helps teachers to communicate more clearly and to identify specific behaviors or strategies while defining expectations. The specificity of the Marzano Observational Protocol had a profound effect on participants in this study.

**Study Finding/Conclusions about research question two**

The second question asked to what extent did the analysis of teacher’s own teaching, via video recording, facilitate self-management, self-monitoring and self-modification of one’s own teaching. The study revealed that the use of video analysis did help participants to facilitate the self-management, self-monitoring and self-modification of their own teaching. Participants were able to generate timely, non-threatening feedback that allowed them to make observations and changes in their teaching. The video either helped to confirm what participants reported in their self-evaluation or allowed them to reassess their evaluation through their own examination. The video became a mirror in which the participants were able to look in order to assess their level of need.

An important aspect of the video analysis was the specific focus on which the video was analyzed. When participants focused on very specific elements or behaviors, it forced them to be critical and didn’t let them avoid the truth. Having a very narrow focus held participants accountable for their actions. While the teacher may be proficient in multiple other areas, if the behavior or strategy they were focusing on was an area of need, the process didn’t allow them to avoid the issue. Conversely, if a teacher was excelling at a behavior or strategy of focus, it allowed them to feel a sense of satisfaction in that particular behavior or strategy even if holistically the lesson could have been improved. However, this is important because it helped to motivate the teachers. Maintaining motivation through the
improvement process is extremely important. It is the momentum of the small victories that allows teachers to continue on with the arduous work of acquiring expertise.

The cohort utilizing the Marzano Observational Protocol was more likely to identify specific elements of improvement versus more general areas that were identified by the cohort that utilized the Danielson Framework for Teaching.

**Study Finding/Conclusions about research question three**

The third question asked to what extent the analysis of reflective peer observations facilitated self-management, self-monitoring, and selfmodification of one’s own teaching. The study revealed that participating in reflective peer observations did help participants to facilitate the self-management, self-monitoring, and self-modification of their own teaching. Again, the study revealed that having a limited but specific focus as determined by a comprehensive teaching framework helped participants to gain more meaning from their observations. Having a specific focus helped teachers to be more comfortable in an observational role. When observing a teacher in the classroom, there are potentially a multitude of areas to observe. Having a limited focus allowed the teachers, many who were new to teacher observation, to have a meaningful and productive experience.

The ability to participate in reflective peer observations allowed participants the opportunity to put the comprehensive teaching frameworks into context. Teachers were able to “see” what the framework looked like when it was applied to a real teaching situation. This helped teachers to better understand both the comprehensive framework and also how the framework could move from theory to practice. Additionally, this helped to stimulate praxis within the participants own teaching. Participants were moved to either attempt new strategies or behaviors because of what they saw in their peers’ classrooms or they were
reminded of practices or strategies that they had previously engaged in but had either forgotten about or abandoned.

**Study Finding/Conclusions about research question four**

The fourth question asked if the perceptions of teacher’s performance was impacted by utilizing a structured reflective process involving a comprehensive teaching framework, video recordings of their own teaching and reflective peer observations. The analysis of data led to the conclusion that the combination of tools combined with a structured reflective process led to perceived improved teaching. As previously noted, the implementation of a process that limited the scope of areas designated for improvement was instrumental in their improvement efforts. The use of the structured process allowed participants to make improvements in their awareness of expert teaching and also to actually modify and improve their teaching.

The structured process resulted in differentiated professional development that allowed all participants to not only improve their metacognition but to also modify their teaching. Participants commented repeatedly that each step of the process enhanced the effectiveness of the program.

1. The background knowledge that was delivered about expertise development and the growth mindset allowed participants to better understand the context and the vision of the process.

2. The comprehensive teaching framework provided a rubric for teaching that created a common language, identified specific teaching strategies and behaviors as well as defined expectations.
3. The self-evaluation provided teachers an opportunity to focus on areas of choice to improve their teaching.

4. The video analysis helped to either confirm perceptions or to highlight new areas of need.

5. The reflective peer observations allowed teachers to see how others were implementing lesson plans within their own classrooms. This helped teachers to either identify new practices to enhance their own teaching or to validate what they were doing in their own classroom.

6. The deconstruction of “metacognition” into self-managing, self-monitoring and self-modification helped participants to move past simple reflection. This resulted in deeper learning and more meaningful feedback for the participants.

7. The ability to debrief and hold meaningful conversations with peers about the process of teaching helped teachers to celebrate their success and share their expertise with peers. This also allowed teachers the opportunity to solicit their peers for ideas, advice and resources. The use of a common language from the comprehensive teaching framework as well as common language on the components of metacognition helped to facilitate meaningful conversations.

8. The written responses helped participants to synthesize and create meaning from their experience.

Participants stated that previous attempts to either watch a video of themselves teaching or to view peers teach with the purpose of improvement were ineffective because they lacked direction. The structured process employed by this study provided teachers the framework and direction that resulted in meaningful feedback that helped to alter their teaching.
Study Finding/Conclusions about research question five

The fifth question asked if utilizing a structured reflective process involving a comprehensive teaching framework, video recording and reflective peer observations, facilitated deliberate practice. The study revealed that all ten key components of deliberate practice were impacted by the process utilized within this study. The finding was stronger within the cohort that utilized the Marzano Observational Protocol due to the specificity of the framework. It was easier for the Marzano Cohort to identify skills to develop that were based on specific need as well as to monitor their performance because of the specificity of the framework. Because the specificity of the Marzano Observational Protocol is more aligned with the concepts associated with deliberate practice it was determined that the utilization of the Marzano Observational Protocol would be better suited at creating teacher expertise than the Danielson Framework for Teaching. While the process allowed both cohorts to improve their teaching, the Marzano Cohort was more likely to improve specific behaviors as identified within the framework.

Finally, teachers viewed the combination of self-evaluation, video analysis, peer observation and structured reflection as way to support teacher growth and to better understand teacher evaluation. Teachers became more comfortable with teacher evaluation because they worked so in depth with a comprehensive teaching framework that expectations were clearer. The process enacted in the study helped teachers to understand that teacher growth is a continual process of improvement. Teachers also came to view expertise as worthy goal even though it may never be truly attainable because of the ever changing variables.
**Findings / Conclusions Compared to Related Literature**

The major findings / themes that were described in the literature review this study were as follows:

1. The concept of deliberate practice which is intense purposeful practice over an extended period of time with focus on specific skills (Ericsson, et al., 1993) was applicable to teaching. If teaching is viewed as a collection of very specific skills that can be improved incrementally through careful planning, monitoring and purposeful modification, then teacher growth is possible.

2. Ericsson (2006) stated that the ability to self-monitor and self-adjust is extremely important in order to acquire expertise. Through the structured process incorporated in the study, participants were able to improve their ability to monitor their own teaching and thus were more likely to make modifications that improved their teaching.

3. There was consensus in the literature about the ineffectiveness of current teacher supervision and evaluation processes due to their lack of timely and actionable feedback. The process incorporated within the study allowed participants to obtain feedback that was timely and allowed them to impact their teaching.

4. Comprehensive teaching frameworks that are standards based and researched based have the potential to promote teacher growth. When feedback is either generated through the use of a comprehensive teaching framework or a comprehensive teaching framework is used to interpret feedback, teacher growth is more possible due to the identification of a common language, specific teaching strategies and behaviors, and the clarification of expectations.
5. There was consensus in the literature in regards to the improvement of teacher reflection as a result of evaluating video recordings of their own teaching. In the study, teachers were able to better identify areas of improvement and some became aware of areas that needed improvement to which they were previously unaware.

6. The literature revealed that peer observations allowed teachers the opportunity to question and refine their teaching while also getting ideas from their peers for improvement. In the study, teachers were able to learn from their peers while increasing their awareness of expert teaching as defined by their respective comprehensive teaching framework.

7. The literature revealed that the success of adopting practices can be traced to improved metacognition or the ability of individuals to self-manage, self-monitor, and self-modify. The study revealed that through improved metacognition, teachers became more aware of their current performance. This prompted them to make changes within their own teaching with the intent to improve their effectiveness. Teachers were able to better plan, monitor and make the appropriate modifications to their teaching because they become more aware of their performance through multiple sources of feedback.

8. Motivation in adult learners is improved if the work is self-directed and the goals are self-generated (Pink, 2009b). The literature also revealed that total choice without a framework can lead to chaos (Knight, 2010). The study showed that teachers were motivated and empowered because of they were given the choice and freedom to create their own improvement cycle. However, the structure of
both the process and the written reflections incorporated in the study provided the framework necessary to maximize efficiency and effectiveness of the experience.

**Discussion of Implications**

The findings of this study further inform fields of study and behavior associated with teacher supervision and evaluation processes that focus on teacher growth. Study findings have particular implications for practice and research, as well as related leadership, learning, and service.

The current research and literature has shown repeatedly that teachers are the most critical factor in determining school and student success and that current typical teacher supervision and evaluation practices don’t improve teaching in the classroom. Recent political actions such as the federal government’s Race to the Top initiative have caused states to create high stakes teacher evaluation systems. The underlying belief suggests that creating a high stakes evaluation system which includes student test scores in combination with typical current teacher evaluation practices will help to improve teacher quality. If current teacher supervision and evaluation practices don’t work, adding in student achievement scores with the threat of dismissal is unlikely to improve teacher and ultimately student performance.

Recent history with NCLB in terms of student achievement has suggested that high stakes testing doesn’t improve student test scores. Rather, quality teaching with emphasis on student growth leads to improved achievement. Potentially the same holds true for teacher supervision and evaluation. Creating a high stakes evaluation system is likely to increase teacher isolation and competition because the “good teachers” will be less willing to share their expertise with others. Adding extra pieces or components to a broken system is likely
to only result in more chaos. What is needed is a dramatic shift in the philosophy and approach of teacher supervision and evaluation.

In November of 2011, the Wisconsin Department of Education released a document entitled “Wisconsin Framework for Educator Effectiveness” that recommends “key design features of a performance evaluation framework for teachers and principals” (page 1). The document states the following are key features of a performance-based evaluation system:

1) aligned with professional development,

2) “educators must be engaged in evaluating their own practice and receive constructive formative feedback on an ongoing basis, as well as received feedback on their summative evaluations,”

3) “formative feedback and summative evaluations should aligned to the district’s human resource practices,”

4) and finally “professional developmental plans, in particular, should be personalized and aligned with evaluation feedback to ensure Wisconsin educators are supported throughout their careers” (p. 3).

The document also states that the evaluation system should be designed to “ensure continuous individual and system effectiveness. The system must be well-articulated, manageable, reliable, and sustainable” (p. 3). The document challenges districts to create a systematic process which will positively impact educator practice and student learning.

The Fostering Teacher Growth model which was developed and implemented in this study addressed several of the key features that were identified in the “Wisconsin Framework for Educator Effectiveness.” This study incorporated a teacher supervisory model that is aligned with professional development within the district, empowered teachers to self-
evaluate and generate formative feedback, was personalized based on the self-identified individual needs of teachers and was aligned to the district’s human resource practices. However, the study did not address summative evaluations and the Marzano Cohort was not directly aligned with the district’s human resource practices because the Danielson Framework for Teaching is the district’s current evaluation model.

The pieces missing from many systems of teacher supervision and evaluation are relevant and timely feedback, a focus on very specific behaviors or strategies to improve at any given time, a focus on teacher growth that takes into account adult learning needs and a process that is not labor nor time intensive for teachers or supervisors. The supervision and evaluation process should be focused on teacher growth. Perhaps it would be beneficial to interpret supervision as a “formative” process and evaluation as more of a “summative” process. Taking this perspective allows both teachers and supervisors to initiate activities within the supervision process that promote teacher growth. In the formative process, risk taking and practice to improve performance are encouraged. The formative process helps both the teacher and supervisor to generate feedback that has the potential to continuously improve the teacher’s practice.

In current education practice, the focus is on differentiation for students to maximize their success. It could be argued that the same philosophy could be applied to teacher development. In this system, professional development is closely linked to the teacher’s current needs that are identified during teacher supervision. The current needs of the staff are addressed on a differentiated basis because teachers are working on improving their teaching in areas that are very specific to the needs as identified during the teacher supervision process.
In adopting this formative supervision approach, both supervision and professional development should be aligned to maximize teacher growth. Professional development should be based on the current needs of teachers as it relates to their daily teaching. These needs can be addressed in a variety of ways but the focus should be on the improvement of very specific behaviors and strategies. This helps to build the link between teacher supervision and professional development as formative tools for teacher development.

If supervision is used as a tool to help identify needs and allocate resources for professional development that help support teachers in their journey toward teacher expertise, then real growth is possible. Implementing a supervision and evaluation system that utilizes formative practices to improve teacher effectiveness addresses the root cause of teacher ineffectiveness instead of the current systems that simply analyze the final effects.

It has been said that insanity is doing the same thing over and over again and expecting different results. The world of education has reached the point of insanity in regard to teacher supervision and evaluation. Educators can no longer expect to get different results from having the same practices and approach to teacher supervision and evaluation. The results of this study imply that the following implications and recommendations should be considered to improve practice in the areas of teacher supervision and evaluation.

1. Frameworks matter: Schools should utilize comprehensive teaching frameworks. Additionally, the more specific the framework the more likely it is to improve teachers’ ability to monitor and modify their daily practices.
2. Specificity matters: Specific expectations lead to specific goals which lead to specific feedback which could lead to specific gains in expertise within those specific strategies.

3. Structured process matters: A supervision process that empowers teachers to develop expertise through self-video analysis, peer observation, and structured self-reflection should be considered. Schools should provide teachers with a systematic structure, framework, and tools to become self-directed.

4. Deliberate practice matters: The concept of deliberate practice should be a central component to improve teaching.

Each of these components is described in detail in the following section. Also in implication two, a model for fostering teacher growth is presented. In implication three, a systematic process to implement a model that promotes teacher growth is presented.

Implications for Practice

Implication One: Frameworks Matter

According to this study, schools that are attempting to improve teaching practices should implement a research based comprehensive teaching framework. Schools that fail to implement comprehensive teaching frameworks run the risk of creating confusion, miscommunication, inefficiency and anxiety within their teachers. While there is great emphasis placed on implementing a comprehensive and consistent curriculum within schools across the country, there has been less of an emphasis on creating a systematic process for delivering the content. According to this study, teachers reported that little time was spent on pedagogy during collaboration with peers. The time is instead dedicated to “what” is taught but rarely to “how” it is taught. Schools should create opportunities for teachers to discuss
effective teaching strategies. Teachers need opportunities to better understand how to implement research based teaching strategies effectively.

The importance of implementing a comprehensive teaching framework cannot be overstated. A research based comprehensive teaching framework that honors the complexity of teaching helps to create a common language for teachers and supervisors while defining opportunities for practice and expectations for quality. This aids in the ability to communicate clearly about specific strategies and to better define what the expectations are for everyone involved. A rubric style comprehensive framework also helps teachers and supervisors identify the components of expert teaching. The rubric helps to make observations more objective and removes the guesswork of what is expected.

School districts also need to find ways for teachers to complete formative self-evaluations using a comprehensive teaching framework (ideally the framework is also used for teacher evaluation within the district). This process helps teachers to identify their areas of strength and areas of improvement. Individually these data can be used to create teacher specific plans for improvement. On a collective level, these data can be used to help the school or district identify common needs of their staff which can help to inform decision making for staff professional development. Also, this practice helps to align teacher supervision and evaluation with the school’s or district’s professional development plan.

**Implication Two: Specificity Matters**

According to this study, the more specific the comprehensive teaching framework is in its identification of specific teaching behaviors, the more likely it is to cause change within teacher’s daily practices. The specificity of the comprehensive framework can enhance the benefits of the supervision and evaluation process. A more specific comprehensive teaching
framework can help teachers and supervisors more easily identify areas of focus and monitor progress within the framework. This is because more specific frameworks help to remove the ambiguity of what specifically needs to be changed. In this study, the use of the Marzano Observational Protocol was more likely to lead to change as perceived by teachers than the Danielson Framework for Teaching. This difference was attributed to the specificity of the Marzano Observational Protocol.

Accordingly, schools should adopt comprehensive teaching frameworks that are specific in their identification of research based teaching strategies and behaviors. The adoption of specific comprehensive teaching frameworks such as the Marzano Observational Protocol can help teachers and supervisors become more effective and efficient in promoting teacher growth within their supervision and evaluation systems. Schools that fail to adopt frameworks that are specific, run the risk of limiting teaching growth due to confusion and ambiguity created by general requirements. As presented in chapter four, a teaching framework that is specific provides teachers and supervisors with a clear and succinct target. More specific goals are easier to assess and monitor. Also, more specific goals are designed to garner more specific feedback which could translate into better gains by teachers in terms of performance. Thus, schools should not only adopt more comprehensive teaching frameworks but use them to develop feedback for teachers on specific goals. Specific expectations lead to specific goals which lead to specific feedback which could lead to specific gains in expertise within those specific strategies. Specificity matters.

**Implication Three: Structured Process Matters**

*Create a model to implement a comprehensive teaching framework*
According to this study, the adoption of a comprehensive teaching framework is not enough to help promote teacher growth. An implementation process needs to be identified or created by schools to help teachers learn, understand and utilize the comprehensive teaching framework. If schools consider a comprehensive teaching framework, the equivalent of a comprehensive curriculum for their students, then the implementation process is how the curriculum is delivered or the ability to bring the curriculum to life. Schools that fail to create a manageable and sustainable implementation process will fail to impact teacher growth much like a teacher who fails to impact student learning because they failed to develop lessons that effectively taught the approved curriculum. Schools need a systematic process to implement the framework just as a teacher needs a systematic process to implement the curriculum effectively. According to this study, teachers want to improve and seek ways to improve. Schools should provide a cohesive structure and systematic process that places an emphasis on growth and puts teachers in control of the process to help make the desire to improve a reality.

With that being said, if school districts utilize a research based teaching framework that creates common language and is very specific in its breakdown of skill sets but lack the process to deliver actionable feedback that fosters metacognition and development of expertise, districts have only half of the equation. A process that is not cognizant of adult learning can only identify the needs of the teacher but it cannot deliver on the solutions that are needed to promote teacher growth. One without the other will limit the potential growth of teachers. What is needed is a process that combines the current research on what is best practice in teaching and what is best practice in adult learning and professional development.
A process designated to promote teacher growth should include the following components: overview of continuous improvement or expertise development, multiple sources of feedback including a comprehensive teaching framework and self-evaluation, and written reflections that are based on a common language of specific components of reflection. The written reflections should be structured to allow teachers to synthesize and garner meaning from their experience.

At the conclusion of the literature review, a preliminary model was proposed entitled, “Fostering Teacher Growth.” This model was used to help synthesize the literature and to build the study design. At the conclusion of the data analysis from the study, a few important changes were made to the model. The final model specifically identifies the reflection portion as written reflection and the concept of “peer sharing” was added to the fifth tier of the model. Figure 8 reflects these changes to the model.

This model contains all of the components that are recommended to help foster teacher growth. When the Fostering Teacher Growth model is analyzed, expertise cannot truly be reached because in the model the continuous loop stops before reaching expertise. Some may misinterpret the model and infer that according to the model expert teachers do not exist. That is not the case, as expert teachers do indeed exist. This study found that to an outsider or observer, expertise may be witnessed, but to the individual within the process they don’t consider themselves experts because they are driven to continuously improve. That is one of the defining characteristics of expertise. Thus the model represents how expertise is perceived by the teachers who are experiencing the process. This correlates to concepts of arrested development and expertise as defined by Ericsson (1993) and Ericsson et al., (1996).
Thus while an observer would see expertise, a true expert is never satisfied and thus never believes they have reached the pinnacle because once an individual believes that they are good enough, that is when they start to succumb to the arrested development concept. So there are expert teachers as defined by observers, this is teacher evaluation, however, in teacher supervision when the focus is on continual improvement expertise is never really reached because it is a process and not a product. This is why the continuous loop doesn’t reach the level of expertise within the model.
Figure 8: Proposed Fostering Teacher Growth Model Final Version

- Expertise Development and Growth Mindset
- Comprehensive Teaching Framework
  (Provides common language, identifies specific strategies and behaviors, defines expectations)
- Video Analysis of Own Teaching
- Reflective Peer Observations
- Metacognition via Structured Written Reflection
  Self-Managing
  Self-Monitoring
  Self-Modifying

(Participants can enter at any point of the cycle)

Deliberate Practice
- Praxis
- Peer Sharing
- Practice

Expertise

Practice

Teacher Growth

Legend: icons = decision points that contribute to growth or stagnation. A growth cycle will incorporate all 3 phases effectively. Teachers that remain in only one phase will limit their growth.

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When considering implementing this model the following components are considered non-negotiable based on the data generated by this study: concepts of developing expertise and growth mindset, a comprehensive teaching framework, a specific focus limited to two or three specific behaviors or strategies, and multiple opportunities to gain specific feedback about their own teaching and to be able to discuss their experience with their peers.

The concepts of expertise development in combination with the growth mindset must be discussed and thoroughly understood. It is important for teachers to have a firm understanding of why they are only focusing on a few behaviors at a time to improve. It is also important for teachers to understand that because they aren’t good at a specific skill currently, doesn’t mean they cannot improve in this deficit area. Having an understanding of how expertise is developed and how having a growth mindset can positively impact their teaching is a crucial component of this model.

A comprehensive teaching framework that creates a common language, identifies specific teaching strategies, and defines expectations needs to be utilized. According to this study, the more specific the comprehensive teaching framework, the more likely it is to cause teachers to monitor and modify their teaching. This component has been previously discussed in implication one.

Teachers should have a very specific focus limited to two or three specific behaviors or strategies that they are trying to improve. Teachers also need opportunities to analyze their own teaching, to see their peers teach and to talk about their experiences with peers (these ideas are more fully developed in implication three). These components must be implemented with fidelity for the model to be successful.
While the following components are not deemed essential, they did help to create a more meaningful experience for the participants. The ability to self-evaluate their teaching using a comprehensive teaching framework and to analyze video of their own teaching helped participants gain a better perspective of their teaching and increased their awareness of expectations and of expert teaching. The utilization of a common language for reflection (metacognition) helped participants to better communicate with their peers and to better understand their own needs. Also, the written reflections helped to solidify their learning and to enhance the meaning of the experience.

It is recommended however, that all of the components of the model are implemented as presented. It was the consensus of participants in this study, that the combination of each of the elements of the model resulted in a powerful experience for the participants. Each component helped teachers to better understand and improve their teaching in different ways. As the participants commented, the whole is greater than the sum of the parts. The implementation of only limited parts of the model will result in limited results.

According to this study, schools need to develop a structured process that provides explicit direction for teachers. The process should delineate the goals, processes and tools that teachers should utilize to improve. If districts seek to build a system that fosters teacher growth and creates expert teachers, then administrators should avoid creating checklists and forms to evaluate teachers. Rather, processes and practices should be created that instill in teachers the understanding that growth is possible and that expertise is attainable. Ideally, schools should provide teachers with the structure, framework, and tools to allow them to become self-directed. Failure to develop a process that results in improving teacher self-
direction will perpetuate the current models of teaching supervision and evaluation that have proven to be ineffective.

According to this study, to impact teacher growth, a limited focus that identifies two to three specific behaviors or strategies to improve should be used. Without a specific focus, the ability to practice skills or strategies that improve teachers’ effectiveness in the targeted area diminishes. Also, the monitoring of the practice becomes difficult due to the lack of specificity. School districts should attempt to use tools and processes that are very specific in their design to help promote teacher growth. The use of a specific research based comprehensive teaching framework such as the Danielson Framework for teaching or the Marzano Observational Protocol in conjunction with a process that allows teachers multiple opportunities to garner feedback and to learn skills that allow them to self-monitor and self-modify their own teaching can help promote teacher growth. The process also needs to be sustainable for teachers and supervisors in terms of time and resource commitment.

**Implement the model systematically**

During the literature review, the following graphic, created by Marshall (2009) was used to help illustrate the limited sample size some teacher supervision and evaluation models use to base their evaluations.
In this graphic, each box represents a teaching period within a school year. Typically teachers teach five periods per day for approximately 180 days per year which equates to 900 periods in a year. The graphic depicts all 900 teaching periods with the black box representing the one class period the teacher was formally observed. As has been previously discussed, typical supervision and evaluation practices result in limited impact on teacher growth.

Based on the results of this study, the following graphic is being presented as a possible supplement to teacher supervision and evaluation. To clarify, this proposed model
does not replace formal observation and evaluation, but it is used to help promote teacher growth.

To develop teacher expertise, a structured process that is grounded in a comprehensive teaching framework and incorporates written reflections based on the analysis of video of teachers’ own teaching and reflective peer observations is utilized. The following description gives an example scenario of how the Fostering Teacher Growth model can be enacted within schools. Examples of times and days are given to better conceptualize how the model can be enacted. The actual times of the teacher activities can vary greatly. Activities should be spaced out with attempts to complete a maximum of one activity per week for ideal results. The earlier the process is started the more time teachers have to improve and impact the achievement of their students.
Figure 10: Potential Impact of Teacher Growth Model

Table 52

*Key for Figure 10*

<table>
<thead>
<tr>
<th>BOX COLOR</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark Blue</td>
<td>Professional development on expertise development and growth mindset</td>
</tr>
<tr>
<td>Red</td>
<td>Self-evaluation using a comprehensive teaching framework and identification of two or three specific behaviors or strategies to focus on for improvement</td>
</tr>
<tr>
<td>Pink</td>
<td>Logistical meeting to understand video recording and peer observation protocols</td>
</tr>
<tr>
<td>Blue</td>
<td>Video recording of one’s own teaching</td>
</tr>
<tr>
<td>Green</td>
<td>Structured written reflection of either video of own teaching or peer observation</td>
</tr>
<tr>
<td>Yellow</td>
<td>Reflective peer observation</td>
</tr>
<tr>
<td>Orange</td>
<td>Peer sharing of experiences</td>
</tr>
<tr>
<td>Purple</td>
<td>Final reflection of overall process and goal setting for future</td>
</tr>
<tr>
<td>Light Green</td>
<td>Signifies improvement in teaching via self-direction</td>
</tr>
<tr>
<td>White</td>
<td>No activity / No improvement via self-direction</td>
</tr>
</tbody>
</table>
This graphic is a modification of the Marshall (2009) graphic. The size and shape of Marshall graphic were altered to mimic a thirty-six week school calendar. In this graphic, each box represents a teaching period. In this example, a teacher has 5 teaching periods a day for 180 days. Each row represents a week within the school year. There are 36 weeks which are divided into four equal quarters. In the first quarter, a teacher is given a weekly activity to complete.

The graphic depicts one of three possibilities for each box. Table 52 delineates the key for Figure 10. The white boxes depict normal teaching without reflection or growth. The dark blue, red, light blue, yellow, orange, dark green, and purple boxes depict periods in which a specific activity occurred such as video recording, a peer observation or a written reflection on either a video or peer observation. The pink boxes depict two brief meetings that occur to help with logistics to understand the proper protocols for video recording or observing peers. The light green boxes signify when a teacher is self-managing, self-monitoring or self-modifying their own teaching. This is considered growth, which leads to teacher improvement. Notice at the beginning of the process, white boxes are common as teachers’ growth is limited due to various factors such as lack of awareness of expectations or lack of awareness of what or how to improve.

The goal of teacher supervision and evaluation should be to create self-directed teacher learners who are capable of making the proper adjustments on a daily basis; this is depicted by the light green boxes. Because no process is perfect, not every box can be green. Also notice that “maintenance” tasks are needed to stimulate self-direction. Without follow-up and fidelity to the tenants of the model, success will be limited. Notice that after the reflection, teachers begin to better self-direct due to increased awareness.
To begin the process, teachers need to be introduced to the concepts of expertise development, deliberate practice, growth mindset and metacognition to help develop background knowledge which will maximize the effectiveness of the process. Even a brief introduction of these concepts is helpful for teachers to better understand the overall goals and direction of the process. This also helps teachers to have a different lens in which they view the process.

During the first task, teachers are asked to self-evaluate themselves using their district’s comprehensive teaching model. This is signified in Figure 10, by the red square. The self-evaluation was completed in week two of the school year in this example. During this self-evaluation, the particular focus is determined by the teacher in what areas to work on. The area of focus must be very specific behaviors or strategies of teaching. These specific elements are the focus throughout the process until the desired level of performance is reached.

The second task to complete is to video record the teacher’s own teaching. A brief meeting is held before the first video recording as signified in Figure 10, by the pink box. In this brief meeting, the teachers are able to ask any questions they have about how proceed with the video recording. In this example, the video is completed in week three on Monday as depicted by the blue box in Figure 10. Teachers are then asked to complete a structured reflection. In this example, the teacher completed the reflection on their first video on Thursday of week three, as depicted by the dark green box.

In week four, a brief meeting is held before the first reflective peer observation as signified in Figure 10, by the pink box. In this brief meeting, the teachers are able to ask any questions they have about how to proceed with the peer observation. In this example, the
teacher completed a peer observation and the accompanying reflection on a Tuesday. This is represented by the yellow square for the observation and the dark green square for the accompanying reflection in Figure 10.

In week five, as depicted by the orange square, a group of teachers shares out their success and areas of concern from either their video or a peer observation, in small groups of four to ten teachers. This allows teachers an opportunity to share their expertise and to access the expertise of their peers. The second video and its corresponding reflection are completed in week five. By this time, the teacher is becoming consistently self-directed. This is represented by the increase in frequency by the light green boxes.

As depicted in Figure 10, the process then continues with peer sharing in weeks six and seven. Also the second peer observation and reflection is completed in week six. In week seven the final video recording and video analysis is completed followed by the final reflective peer observation in week eight. The initial stage of the Fostering Teacher Growth model culminates in a final reflection and goal setting written reflection, as depicted by the purple box.

To maintain the awareness levels and focus on teacher growth, maintenance videos and peer observations are assigned once per quarter as checkpoints of progress. These checkpoints should be directly related to the goals that were set in week nine. At this point, another self-evaluation will determine the next behavior or strategy on which to focus.

One of the issues of teacher supervision and evaluation is how time and labor intensive the process is. Adopting this process helps teachers to focus their time productively and to be able to see improvement in their targeted areas. Because the process produces meaningful feedback that is relevant to the teacher, they are more likely to fully invest into
the process. During weeks of assigned tasks, the time commitments are typically no more than one to two hours per week or less.

For supervisors, the time commitment is less than one hour per week. Supervisors help to build background knowledge of expertise development and the growth mindset. They then have the responsibility of helping teachings understand the logistics of both video recording and peer observations. After this is completed, supervisors then become facilitators during peer sharing meetings. Peer sharing is an opportunity for teachers to exchange ideas, strategies, and to help one another with concerns. Also during peer sharing, supervisors are able to gain information on what types of activities or strategies teachers are struggling with or using successfully. This information can be utilized to inform professional development plans as well as to help identify experts within the building. Thus supervisors are able to help teachers positively impact their daily practice with a minimal time commitment.

**Implication Four: Deliberate Practice Matters**

According to this study, the concept of deliberate practice should be a central component to improve teaching. The solutions to problems often lie in different contexts in our world all around us. For example, sports programs of all types are thriving in America because of their approach to improvement. In sports, the rules and expectations are clear (a comprehensive framework), athletes study video of themselves and their team to locate areas to improve (video analysis), players watch their peers, others or professional teams play to better understand the game and to learn from the best (reflective peer observations). These tools are used to help athletes develop their skills by applying what they see on video and what they see others do to their own playing experience. This is a form of obtaining
expertise through deliberate practice. As delineated by Ericsson (1996) and Ericsson et. al, (1993) the key components of deliberate practice are identified in Table 53.

Table 53

*Key Components of Deliberate Practice*

<table>
<thead>
<tr>
<th>Key Components of Deliberate Practice</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal is improved performance</td>
<td></td>
</tr>
<tr>
<td>Skills to be developed should be based on specific needs</td>
<td></td>
</tr>
<tr>
<td>Sustained effort of repetitive of specific tasks are designed to improve weakness</td>
<td></td>
</tr>
<tr>
<td>Activities provide opportunity for learning and skill acquisition</td>
<td></td>
</tr>
<tr>
<td>Practice should be outside of comfort zone</td>
<td></td>
</tr>
<tr>
<td>Performance is carefully monitored</td>
<td></td>
</tr>
<tr>
<td>Feedback is necessary</td>
<td></td>
</tr>
<tr>
<td>The ability to self-monitor is a necessity</td>
<td></td>
</tr>
<tr>
<td>The process may not be enjoyable but the pleasure comes from the development and enhanced performance</td>
<td></td>
</tr>
<tr>
<td>Expert performance is acquired gradually and incrementally</td>
<td></td>
</tr>
</tbody>
</table>

It is easy to see the translation of these key components of deliberate practice in sports. However, these same tenants can be applied to the field of education and the improvement efforts of supervision and evaluation programs.

This study revealed that a teacher supervision and evaluation process that is focused on teacher growth can be successful if it is mindful of the key components of deliberate practice. Deliberate practice as it relates to teacher supervision and evaluation is an intense purposeful focus on a specific teaching strategy or behavior that develops self-direction and ultimately improved performance in that area. Creating a process that incorporates deliberate practice within professional development and supervision opportunities may hold a key to teacher growth. Schools that fail to implement the research on expertise development within their own teacher supervision and evaluation systems may limit the growth potential of their staff and thus impact student achievement.
A major focus should be on developing teachers’ ability to self-monitor their own practice. This would help to impact teaching on a daily basis while limiting the amount of time and resources needed to conduct external observations. Schools that continue to perpetuate a teacher supervision and evaluation system that is reliant on sporadic external feedback for teachers is limiting the potential for teacher growth.

Again, if the focus of teacher supervision and evaluation is teacher growth then a framework needs to be adopted that allows teachers to improve. For supervisors to simply state that a teacher should improve in the area of questioning or classroom management is no longer enough. Supervisors should incorporate the key components of deliberate practice as a framework for helping to promote teacher growth.

In essence, effective supervision and evaluation is about appropriately and effectively layering frameworks on one another that address vital components. An effective framework is needed that discusses the components of developing expertise or growth. This should be followed by a comprehensive teaching framework that addresses the complexity of teaching such as the Danielson Framework for Teaching or the Marzano Observational Protocol.

While the frameworks for expertise and teaching set the foundation for growth, another framework should be added that details a process for gathering timely feedback that helps teachers to effectively reflect and process their experience while allowing teachers to practice and develop their skills. The following table gives examples of frameworks that could be used to address the vital components for teacher supervision that promotes growth.
Table 54

*Vital Components and Potential Frameworks for Teacher Supervision That Promotes Growth*

<table>
<thead>
<tr>
<th>Vital Components</th>
<th>Example Frameworks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Improvement</td>
<td>Deliberate Practice / Growth Mindset</td>
</tr>
<tr>
<td>Comprehensive Teaching Framework</td>
<td>Danielson Framework for Teaching OR</td>
</tr>
<tr>
<td></td>
<td>Marzano Observational Protocol</td>
</tr>
<tr>
<td>Obtaining Feedback / Reflecting and Practicing</td>
<td>Fostering Teacher Growth</td>
</tr>
<tr>
<td>Effectively</td>
<td></td>
</tr>
</tbody>
</table>

The key components of deliberate practice can be used to effectively improve teacher performance. Schools and districts should view teacher supervision as an opportunity to improve all teachers with goal of creating expert teachers. Once schools and districts take a formative approach to teacher supervision then they need to create or adopt processes that effectively address the tenants of deliberate practice similar to the process that was utilized in this study.

*Implications for Leadership, Learning, and Service*

The findings of this study further inform fields of study and behavior associated with teacher supervision and evaluation processes that focus on teacher growth. This study has implications for those who are in leadership positions that either supervise and evaluate teachers or are responsible for the professional development of teachers

**Implication One: Leaders Must Model Learning Within Their Organization**

Leaders are charged with creating an environment and opportunities that allow their staff to develop and reach their potential. In the current political climate, it is much easier to point a finger at the teachers who are failing and place the blame solely on them. This study challenges leaders to reassess their current practice by forcing them to ask how they are helping their staff to improve. While some practitioners claim it is the professional
responsibility of teachers to take it upon themselves to become experts, this is not modeling the beliefs, attitudes or creating the environment that school leaders want to see in their own teachers’ classrooms.

One of the greatest forms of leadership comes in modeling that which you desire to see within your own organization. If leaders and supervisors give up on teachers and simply “evaluate them out of the profession” or settle for only adequate performance it is no different than the teacher who simply says, “I taught it. It’s not my fault the students didn’t learn it.” Leaders must create an environment where teacher improvement is a possibility. Also, leaders are challenged with creating a process and system that makes the possibility of teacher growth a reality. This study helps to identify potential practices and processes that can be used to promote teacher growth. This research may inform leaders of schools on alternative ways of promoting teacher growth through the use of existing teacher supervision and evaluation tools in conjunction with video analysis of teachers’ own teaching, peer observations and written reflections.

**Implication Two: Leaders Must Strive to Develop Self-Directed Employees**

Leaders are also responsible for creating a learning organization by understanding how to develop their staff through effective teaching practices. This study helps to promote practices that take into account adult learning research. When attempting to maximize the learning of an organization, adult learning needs should be considered. This study attempts to incorporate adult learning practices that are practical and sustainable.

This implication is directly tied to the previous one. Great leaders are great teachers. They help their staff to reach their potential by becoming self-directed. A popular saying has credence here: Give a man a fish, feed him for a day. Teach a man to fish, feed him for a
lifetime. Great leaders teach their staff to fish. By helping people to become self-directed, it allows the organization to maximize its effectiveness. This study helped to show the impact that promoting self-direction can have on teacher growth. Teachers don’t need to be watched on a daily basis by supervisors and given feedback about what they are doing incorrectly. What is needed is a process to develop the abilities of teachers to self-manage, self-monitor and self-modify their daily practices.

Implication Three: Leaders Should Engage in Practices That Promote Professional Growth

This study also informs the concept of service in educational leadership. The study promoted teacher growth through the use of self-generated internal feedback. This study sought to limit the use of external feedback that is typically generated by supervisors and leaders. Instead, this study placed the school leader in a servant role who was responsible for helping to facilitate growth through support and by providing structure for the process. The teachers were empowered throughout the entire process via their ability to control their focus and plan for improvement.

The implication for service is paramount within this study. Leaders are advised to give up the control and power associated with teacher supervision to teachers. To clarify, the summative teacher evaluation needs to remain with supervisors but the focus and developmental efforts or formative evaluation of teachers should be viewed as a partnership between teachers and supervisors. The leader or supervisor should view their role in teacher supervision as more of a facilitator and not a dictator. The leader or supervisor should concentrate their efforts on guiding and supporting teachers through a process that promotes teacher growth.
Implications for Research

This research is exploratory in nature and, as such, has considerable limitations. In this study, a limited number of teachers, all female, from one school district in southern Wisconsin were chosen for the study. The limited sample size makes it difficult to generalize to a broader group, and therefore the findings are unique to the group studied. Additional research utilizing this design should be conducted at other sites and in other states to see if similar results are obtained. The Fostering Teacher Growth model used for this study should be replicated with different components either being emphasized or eliminated to determine which components have the most impact. For example, the study could be replicated without including a common language for metacognition or without written reflections or without reflective peer observations or any other of the components. While the participants within this study stated that the combination of the components is what made the experience so meaningful, further studies could help determine which components could be minimized or emphasized.

Concluding Remarks or Future Research

Teacher supervision and evaluation is currently at the forefront of American schools due to the federal government Race to the Top legislation. Both policy makers and educators have reached a critical juncture for public education. The focus has become transforming the schools we have to the schools we need to function at a high level as a society. Unfortunately, it appears high stakes teacher evaluation is being viewed as the magic bullet that will help to make this transformation possible. While teacher evaluation has its place in helping to improve teacher practices, the focus needs to be placed on developing teachers through an engaging, meaningful, relevant and timely process. This can be accomplished
through formative teacher supervision. Therefore, additional research utilizing this design should be conducted at other sites and in other states to see if similar results are obtained. Of particular interest would be to compare other comprehensive teaching frameworks while utilizing the same process.

This study was qualitative in nature; quantitative studies focusing on perceptions of teachers focusing on self-management, self-monitoring, and self-monitoring may help to support the qualitative findings that were presented in this study.

This study was also conducted with volunteers who had a professional interest. Duplicating this study within a whole school for all teachers would help to create a better understanding of the feasibility, sustainability and impact of the process.

Finally, a longitudinal study that linked the process presented within the study to study achievement may help to create a better understanding between teacher perceived improvement and actual student achievement.
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