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Perceived Effects of Peer Observation on Collaboration between Teachers at a Minnesota High School

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by

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Abstract

This study examined teacher perceptions of the effectiveness of a newly implemented peer observation program in a central Minnesota High School. The two research questions for this study were: (1) To what extent do teachers perceive the overall effectiveness of participating in a peer observation process? and (2) To what extent do teachers perceive the overall quality of their professional interactions, communications, feedback, or discussions [with or from or by] peers as a result of participating in this process? A mixed-methods approach was used to gather data in the form of survey and interview responses. A 28-item questionnaire was developed, consisting of a demographic item concerning the roles held in peer observation, 24 Likert-scale items, and three optional open-ended items. An interview protocol was developed to gather description of the teachers' perception. The population of approximately 100 teachers at this high school were surveyed using the questionnaire. Five Interview participants were selected using criterion sampling techniques. The data for this study was collected during the spring of the 2015-2016 school year. At the time of the study, the peer observation program was in its first year of implementation.

The survey results were analyzed using basic descriptive statistics and the interview responses were coded using thematic analysis to help answer the research questions. The results from the survey and interviews indicate that the peer observation process is an effective form of professional development. In addition, participants indicate that the professional interactions and collaborative conversation have improved from taking part in the peer observation process. The participants noted the benefits of taking part in peer observation were the opportunity to critically

reflect, the increased self-awareness of their teaching practice, and collaborating with their peers. The main challenge for teachers was the additional time needed to take part in the process.

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Chapter 1: Introduction

This study is designed to examine teacher perceptions of their experience in a year-long peer observation and collaborative school-improvement effort. Highly effective teachers impact the achievement of students. The quality of the teaching force in a school has a strong effect on student outcomes (Darling-Hammond, 2000), meaning quality schools with effective teachers are important for student achievement. Using this postulation, schools should focus staff development on the continuous improvement of teacher quality. To increase the capacity for quality of their teaching force, schools can employ one or many different programs for professional development. Critics have characterized professional development activities in schools as having varying quality and effectiveness from year to year as well as providing varying experiences from teacher to teacher (Porter, Garet, Desimone, Yoon, & Birman, 2000).

According to Tallerico (2006), "professional development refers to processes designed to enhance educators' knowledge, skills, and attitudes for the purpose of improving students' learning" (p. 809). A widely-used method of professional development is training. According to Sparks and Loucks-Horsely (1989), these trainings are cost-efficient "workshop-type sessions in which the presenter is the expert who establishes the content and flow of activities" (p. 43). While this method of staff development has benefits, there are issues with its effectiveness. Scanlon, Gallego, Duran, and Reyes (2005) note three problems in particular: (1) the basis for teacher participation lacking a common purpose, (2) little or no time for feedback or discussion with the staff developer, and (3) the absence of opportunity for genuine and collegial relationships between teachers and staff developers. This manner of professional development

can be ineffective, uninspiring, and short-lived, which begs for a more involved and interactive way for teachers to improve their practice.

As opposed to sporadic, discrete professional development, the current expectation is that professional development is a continuous process which takes place during working hours (Lunenburg, 2006). This approach to professional development is called job-embedded professional development. Job-embedded professional development is professional development within schools focused on quality instruction and student achievement that:

1. Occurs during the workday and is in the workplace.
2. Is closely connected to the actual work of teachers in classrooms with their current assignments.
3. Is designed to improve teachers' instruction.
4. Is intended to improve student learning.
5. Is centered on the academic student needs of the school.
6. Is directly linked to the goals set for the students by the team and the school. (Minnesota Department of Education, 2015)

Job-embedded professional development focuses on building capacity, rather than individual teacher development (Tallerico, 2006). A study by Porter et al. (2000) had the following findings:

> Professional development focused on specific, higher-order teaching strategies increases use of those strategies in the classroom. This effect is even stronger when the professional development activity is a reform type (e.g. teacher network or study group) rather than a traditional workshop or conference; provides

> opportunities for active learning; is coherent and consistent with teachers' goals and other activities; and involves the participation of teachers from the same subject. (p. 5)

This type of professional development is conducive to a collaborative effort among the school staff to improve teacher quality and raise student achievement. Peer observation of teaching and peer coaching is a collaborative model for professional development as "the goal is to serve as a second set of eyes and ears for one another, for subsequent joint discussion, and reflection on the instructor's teaching and the students' learning" (Tallerico, 2006, p. 810).

Peer Observation of Teaching

Peer observation is a self-reflective form of professional development where teachers, administrators, counselors, or other staff observe another member in a similar position for the purposes of developing and enhancing practice for all who are involved. Anecdotal evidence has shown this process has the potential to be a positive development tool for both the observed teacher and the observing teacher. The peer observation process is a way of "promoting dialogue between and among teacher educators in a non-threatening manner" (Horn, Dallas, & Strahan, 2002, p. 11).

Peer observation can be used as a formal summative evaluation tool (Golparian, Chan, & Cassidy, 2015); however, this study will focus on and examine the formative, or developmental, use of the process. When used as a formative tool to help self-develop, teachers enjoy the productive benefits of stimulated reflection while avoiding the potential issues and uneasiness from unqualified judgment or criticism from peers (Cosh, 1999). The formative process uses

self-reflection of the observed teacher to create and foster discussion about her or his teaching practice and strategies (Siddiqui, Jones-Dwyer, & Carr, 2007).

The peer observation process is used by mentor teachers to help improve the instructional practices of new teachers (Gordon, 2004). This form of peer observation, hereafter referred to as mentor observation, is a one-way developmental tool where the mentor teacher leads the mentee through the peer observation process as the observer. The mentee does not reciprocate the process as the observing teacher. According to Stanulis and Ames (2009), the practice of mentor observation is an "important element in supporting the development of teaching practice and the work of mentoring" (p. 9).

Salvador (2012) found in a qualitative study that peer observation is not a "discrete professional activity of watching a peer teach for a specific period of time, but rather a combination of professional activities, reflections, and thoughts that is not time bound to the time the observer sits in the class observing" (p. 92). The cycle for peer observation of teaching begins with a pre-observation conference, followed by the classroom observation, and then concludes with a post observation conference (Daniels, Pirayoff, & Bessant, 2013; Golparian et al., 2015; Siddiqui et al., 2007). The pre-observation conference is held to define the structural details of the pending observation which including the date, time, and location, clarification of the roles of the observer and the observee, and specification the observer's focus during the observation (Daniels et al., 2013; Eri, 2014; Siddiqui et al., 2007). During the observation, the observer focuses on the predetermined areas of interest agreed upon during the pre-observation conference (Daniels et al., 2013). The post-observation meeting is held for the observed teacher to reflect upon the lesson (Siddiqui et al., 2007).

Research states peer observation is a quality, practice-enhancing experience. A study by Arnau, Kahrs, and Kruskamp (2004) found that increased teacher morale arose from the opportunity to receive new ideas and meaningful feedback, observe respected teachers, and partake in conversations with teachers in similar situations. Given that the purpose of peer observation is developmental and not judgmental, Zwart, Wubbels, Bergen, and Bolhuis (2009) found teachers could experiment with alternative teaching strategies, adding new instructional skills and strategies to their repertoire. Horn et al. (2002) state: "Peer coaching became the vehicle for improved instructional practice as a result of these new opportunities for communication and collaboration" (p. 11). The intentional reflection allowed teachers to articulate what they would like to change or how they would like to grow in their practice (Daniels et al., 2013).

Slater and Simmons (2001) found that in addition to teachers adopting new strategies and receiving quality feedback, the process also helped overcome teacher isolation. The opportunity to watch other teachers and discuss teaching to build professional knowledge was found to be appealing, as teaching is often a solitary function (Horn et al., 2002). This is also supported by a study from Arnau et al. (2004) that states "opportunities to discuss teaching- formally or informally- are valued by educators" (p. 39).

Studies on peer observation have shown that, while it is a positive practice, it has lacked in-depth analysis and has had implementation issues. The structure of the process- consisting of a pre-observation conference, in-class observation, and post-observation conference- has obstacles to implementation due to scheduling issues and increased workload for teachers (Brix, Grainger, & Hill, 2014; Horn et al., 2002; Murray, Ma, & Mazur, 2009). Murray et al. (2009) found the

collaborative conversations of the post-observation conference were brief and, among other things, characterized by a lack of analysis and a lack of depth in discussion. In a qualitative study, Brix et al. (2014) found the process an unnecessary force to try and deprivatize education, a process that is commonly taking place without the initiative. The peer observation process risks ambiguity (Murray et al., 2009) and can be "decoupled from more formal professional development processes" (Chamberlain, D'Artrey, & Rowe, 2011, p. 197) raising questions about its purpose and usefulness. Questions have been raised to see if a deliberate collaborative and self-reflective effort could develop deeper discussions and productive conversations with on-going course-alike teacher teams who take part in the peer observation process.

The opportunity for teachers to go through the peer observation process within their department gives a first-hand experience inside of an instructor's classroom. Understanding the context of each others' classrooms could potentially lead to improved conversation and collaboration among teachers within the same department. Research has been done on discrete programs, where the teachers involved take part in the process but are not linked to ongoing collaborative groups. This study offers insight to the program with the opportunity for continued conversation and collaboration between teachers throughout the school year. The focus of this study is to gather information about the effect peer observation has on collaboration as well as collaborative conversations that happen among the teaching staff.

Statement of the Problem

The problem of this study is focused on teacher perceptions of their experience in a year-long peer observation and collaboration school improvement initiative. This study will determine to what extent teachers perceive the quality of collaboration, feedback from peers, and reflection

of practice with the expectation of improving teaching and student learning. Information was gathered using a twenty-eight item questionnaire and an eight item interview protocol. Data was gathered during the spring of 2016 from approximately one-hundred teachers from a central Minnesota High School that has recently implemented a peer observation program. In addition, five teachers were selected from this group and participated in a semi-structured interview. The individuals selected for this study were teachers who participated in the peer observation process during the 2015-2016 school year. This study will provide information for administrators and teachers that may assist in improving formative performance appraisal activities and teacher collaboration opportunities in public high school settings.

Purpose of the Study

There is a widespread call for improved education, and in response, school districts are adopting new professional development processes such as peer observation. As with many programs, questions emerge about the effectiveness of such programs. The significance of this study is that, while there is a growing amount of literature in the field of peer observation (Brix et al., 2014; Murray et al., 2008), there is little research done at the high school level. In addition, studies done have been with a peer observation process implemented with no further opportunity for collaboration among staff members. The purpose of this study is to examine if understanding the context of another teacher's classroom will lead to a perception of more effective collaboration among the teachers. As teachers move away from a culture of isolation toward a culture of collaboration, school administrators and teacher leaders must understand and be able to measure the impact effective collaboration has on improving practice and student learning. This study will add to the literature on peer observation and collaboration.

Objectives of the Study

The study was guided by the following objectives:

1. Review research and literature on peer observation.
2. Design an instrument to assess the beliefs of the participants of peer observation.
3. Secure permission to follow through with the study from the district superintendent.
4. Obtain permission from the individuals to participate in the study.
5. Acquire recording device for interview protocol.

Research Questions

This study is designed to answer the following research questions.

1. To what extent do teachers perceive the overall effectiveness of participating in a peer observation process?
2. To what extent do teachers perceive the overall quality of their professional interactions, communications, feedback, or discussions [with or from or by] peers as a result of participating in this process?

Assumptions of the Study

The assumptions of the study are as follows:

1. All participants of this study will answer all questions honestly.
2. Supervision is a routine practice in all school settings that include some manner of formative and summative components.
3. Effective teaching is essential for improving student learning.

4. Collaboration is viewed as an important component for professional development.

Delimitations of the Study

The delimitations of the study are the following:

1. The study was conducted in the spring of 2016.
2. The study is limited to the teachers at one public high school and can only generalize back to these participants.
3. The study did not take into account the content area or department from which the teachers are drawn.

Human Subject Approval

The requirements set forth by the St. Cloud State University Institutional Review Board are strictly followed to guarantee the protected rights and welfare of all participants in this study. The collection of data will come via an electronic survey and an interview protocol which poses no foreseeable risk or discomforts among the participants. Participation is voluntary and participants can withdraw at any time. Individuals give consent of participation in the survey by completing the survey. Individuals give consent to participate in the interview by signing an informed-consent form. Non-participation in the survey is indicated by not completing the survey. This study is approved by the St. Cloud State University Institutional Review Board.

Definition of Terms

Collaboration: To work jointly with others or together especially in an intellectual endeavor (Collaboration, 2003).

Effectiveness: The relationship between teacher instructional strategies, behavior, or effects and student outcomes (Heck, 2009).

Formative Evaluation: An ongoing process that is used for teachers to utilize information about their performance to measure the success of learning intentions in relation to expectations and to make adjustments based on the information (Eller & Eller, 2015; Hattie, 2008).

Mentee: A less experienced, or beginning, teacher who is the beneficiary of guidance, support, and advice offered by a more experienced teacher (Ostovar-Nameghi & Sheikkahmadi, 2016).

Mentor: An experienced teacher who facilitates and assists a less experienced teacher's growth and development (Ostovar-Nameghi & Sheikkahmadi, 2016).

Mentor Observation: A one-way developmental tool where the mentor teacher leads the mentee through the peer observation process as the observer.

Peer: One that is of equal standing with another (Peer, 2003).

Peer Observation: The process of a teacher observing another colleague during a teaching session and subsequent discussion about the lesson (Cosh, 1999).

Professional Development (Staff Development): Processes that improve the job-related knowledge, skills, or attitudes of school employees (Sparks & Louks-Horsely, 1989).

Professional Learning Community: Teacher collaboration meetings to analyze classroom practice, learn new instructional strategies and tactics, field-test them in the classroom, and report the results to each other (Minnesota Department of Education, 2015).

Summative Evaluation: Teacher evaluations that are used to place a final score or grade on the performance of a teacher at the end of a period of time (Eller & Eller, 2015).

Chapter 2: Review of Literature

This study is focused on the effectiveness of the peer observation process on the collaborative conversations that take place between staff members. This study will gather qualitative and survey information from teachers who are currently taking part in the program.

The initial review process began by internet search from the St. Cloud State University's library databases. Databases searched were the Educational Resource Information Center (ERIC) database, EBSCOhost research database, and the Professional Collection at Gale Databases. Bibliographic information from benchmark publications and relevant articles led to searches for other pertinent research articles.

This review of literature is a synthesis of the findings of studies focusing on school improvement, evaluation of teachers, and professional development. The research and publications in this review of literature range in date from 1979 to present day. Significant Texts in this study are *Student Achievement Through Staff Development* (Joyce & Showers, 1995), *Professional Development for School Improvement* (Gordon, 2004), *and Score to Soar: Moving Teachers from Evaluation to Professional Growth* (Eller & Eller, 2015). Information and references from these texts were significant to this study.

Overview of School Improvement

There is widely held expectation that school personnel improve their teaching practice to positively affect student achievement. Teacher effectiveness is related to student achievement (Heck, 2009). "Better teachers mean better schools. Better schools mean better development of our children" (Odell, 1990, p. 30). School leaders must understand the characteristics of successful schools for continuous improvement. Past reports outlining the failures of the school

system sparked research on effective schools, and later, led to an increased role of the government in education through mandates and legislation, ushering in an era of accountability.

Effective schools research. The research that became the base for the effective schools movement was stimulated by "The Equal Education Opportunity Survey" by J.S. Coleman et al., in 1966, which concluded that student achievement was primarily determined by family background and schools did not make a difference in predicting student achievement (Lezotte, 2001). A body of effective-schools research recognized the importance of the impact of family on student learning, but found that the factors allowing student mastery of core curriculum were controlled by the school (Lezotte, 2001). Early effective research began by building foundational knowledge of what effective schools, regardless of socioeconomic status or family background, were doing to maintain effectiveness. Edmonds, Brookover, and Lezotte pioneered their research by identifying effective schools and recognizing common characteristics. Original data collected by Edmonds (1979) identified six elements of effective schools, these included:

1. Strong administrative leadership.
2. Climate of expectation.
3. Atmosphere that is orderly but not rigid, quiet but not oppressive, and conducive to education.
4. Acquisition of basic school skills had precedence over all other school activities.
5. School energy and resources prioritized to fundamental objectives
6. Frequent monitoring of progress.

In adding to these analyses, observations made by Brookover and Lezotte (1979) recognized ten areas of distinct difference between improving and declining schools:

1. Emphasis on accomplishment of basic reading and mathematics objectives.
2. Belief by teachers and principals that all students can master the basic objectives.
3. High and increasing levels of expectations.
4. Responsibility of and commitment to teaching basic reading and math skills.
5. Devoted time to reading and math objectives.
6. Principal who assumes instructional leader role and responsibility for achievement.
7. Acceptance of accountability by the staff.
8. Tension and dissatisfaction with existing situation.
9. Higher levels of parent-initiated involvement.
10. Paraprofessional and regular teachers are not heavily involved in the selection of students for compensatory education programs.

Continued research in the field of effective schools has refined the correlates of successful schools to seven (Lezotte, 2001):

1. Instructional Leadership
2. Clear and Focused Mission
3. Safe and Orderly Environment
4. Climate of High Expectations
5. Frequent Monitoring of Student Progress

6. Positive Home-School Relations
7. Opportunity to Learn and Student Time on Task

Austin and Reynolds (1990) reviewed a second wave of effective schools research that occurred in the 1980s relating to the actual implementation of the research within schools. Austin and Reynolds (1990) divided the characteristics of effective schools into two categories- organizational characteristics and process characteristics:

Organizational Characteristics

1. Site Management
2. Leadership
3. Staff Stability
4. Curriculum and Instructional Articulation and Organization
5. Staff Development
6. Maximized Learning Time
7. Widespread Recognition of Academic Success
8. Parental Involvement and Support

Process Characteristics

1. Collaborative Planning and Collegial Relationships
2. Sense of Community
3. Clear Goals and Expectations Commonly Shared
4. Order and Discipline

Many schools use the research on effective schools as a framework for school improvement (Lezotte, 2001) and have replicated success of the practices (Baringer, 2010).

Government role in education. State and federal agencies have set in place legislation to ensure the continued improvement of schools. The Elementary and Secondary Education Act of 1965 was the first large-scale show of support and is the most expansive federal education statute (Russo, 2005). Concern about the effectiveness of schools was reported in *A Nation at Risk* in 1983, ushering in an era of accountability calling for education reform and formal systems of accountability (Franco, 2010). In response to the public concerns over the effectiveness of schools, the Elementary and Secondary Education Act has been amended and reauthorized under different names; Goals 2000: Educate America Act, No Child Left Behind Act, and Every Student Succeeds Act.

Goals 2000: Educate America Act. The Goals 2000: Educate America Act legislation, passed in 1994, placed the focus of states and school districts on "school readiness, school completion, student achievement and citizenship, safe and drug-free schools, and parent participation" (Shackelford, 2008, p. 328). The Goals 2000 Act required that by the year 2000 the following eight goals are met:

1. All children in America will start school ready to learn.
2. The high school graduation rate will increase to at least 90 percent.
3. All students will leave grades 4, 8, and 12 having demonstrated competency over challenging subject matter, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our Nation's modern economy.

4. The Nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.
5. United States students will be first in the world in mathematics and science achievement.
6. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
7. Every school in the United States will be free of drugs, violence, and the unauthorized presence of firearms and alcohol and will offer a disciplined environment conducive to learning.
8. Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children. (US Department of Education, 1994)

This law provided funding and a framework for the development of content standards and performance measures (Franco, 2010). The Goals 2000: Educate America Act of 1994 was replaced by the No Child Left Behind Act of 2001.

No Child Left Behind Act. The No Child Left Behind Act, signed into law in 2002, marked a "major expansion of the federal role in education" (Stevenson, Schertzer, & Ham, 2008, p. 351). This act contains numerous provisions, as noted by Porter and Polikoff (2008):

> "…including annual yearly assessments for all students from Grade 3–8 and 10 in reading, math, and science; requirements for teachers to be "highly qualified"; school choice options to allow parents of students in failing schools to move their children to other schools; and sanctions for schools that fall short of measureable achievement objectives." (p. 435)

Furthermore, the seven key components of the No Child Left Behind Act are: closing the achievement gap; improving literacy by putting reading first; expanding flexibility; reducing bureaucracy; rewarding success and sanctioning failure; promoting informed parental choice; improving teacher quality; and making schools safer for the 21st century (Porter & Polikoff, 2008). Ganley, Quintanar, and Loop (2006) state that the No Child Left Behind Act recognizes "teacher variables are some of the foremost predictors of student success" (p. 7), where historically, reform efforts have focused on issues other than teacher quality. The No Child Left Behind Act came to an end in December of 2015 when the Every Student Succeeds Act was signed into law.

Every Student Succeeds Act. The Every Student Succeeds Act was signed into law in December 2015 and reauthorized the Elementary and Secondary Education Act. This act reduces the role of the federal government and places accountability with the states (Darrow, 2016).

Other recent educational reform efforts include the Race to the Top initiative in 2009 and the Common Core Standards State Standards Initiative in 2010. The Race to the Top program was a government initiative that "awarded three rounds of grants to states that agreed to implement a range of education policies and practices designed to improve student outcomes" (Dragoset et al., 2016, p. xiv). A study completed by Dragoset et al. (2016) found no clear

evidence of a relationship between involvement in the Race to the Top program and student outcomes. To comply with components of Race to the Top, states could implement the Common Core State Standards. The Common Core standards are a set of English language arts/literacy and mathematics standards that were developed by state leaders, independent of the federal government, to ensure students were prepared to take credit-bearing introductory courses in college programs or enter the workforce (Common Core State Standards Initiative, n.d.).

The emphasis on accountability in American education is a result of the educational reforms mandated through legislation with content standards, assessments, and evaluations. Classroom practice has been targeted for improvement as the US education system has shifted toward a climate of accountability (York-Barr, Sommerness, & Hur, 2008).

Accountability measures. The standards movement, a product of the accountability movement, brought in three types of standards; curriculum standards, performance standards, and opportunity to learn standards (Berliner, 2008). Curriculum standards determine what and when content is taught. Performance standards determine the level of performance of the curriculum standards. Opportunity to learn standards refer to availability for students to learn the required curriculum at the required performance level. The curriculum is thought of in three ways: (1) the intended curriculum is that which is mandated by lawmakers and local districts, (2) the implemented curriculum is that which is actually taught, and (3) the learned curriculum is that which the students came away with (Berliner, 2008). These standards are purported to be derived from politics and values, not science, leading to passionate disparity with the stakeholders (Berliner, 2008).

Schools are held accountable for adhering to the standards developed by lawmakers via assessment through standardized tests. Linn (2001) states policymakers favor assessment because "it is relatively inexpensive compared to making program changes, it can be externally mandated, it can be implemented rapidly, and it offers visible results" (p. 1). The data gathered from assessment is used as a means to gauge school success and is used to make informed policy and personnel decisions (Johnson & Rao, 2010).

Evaluation of a teacher's performance by an administrator is another method of accountability. Although there are other purposes, legislators and policymakers recognize as the sole purpose teacher evaluation as a quality assurance measure of teachers for each classroom (Danielson, 2001).

Research is critical about the accountability measures set in place for school improvement. A study across states by Polikoff, Porter, and Smithson (2011) found dissonance in the alignment of standardized assessment to content standards in both the topics tested and the cognitive demand levels. Critics of assessment cite that research has shown no clear evidence that high-stakes testing improves student learning (Nichols, 2008), and that improving assessments changes how student achievement is measured rather than changing how and what is learned (Joyce & Showers, 1995). Research by Range, Scherz, Holt, and Young (2011) found the main frustrations of teacher evaluation to be the time necessary to complete the evaluations, the evaluation instruments, and the teachers' willingness to change. A recent research review of empirical evidence on teacher evaluation as a school improvement strategy by Hallinger, Heck, and Murphy (2014) had two key conclusions: (1) No evidence was found in support of teacher evaluation as a school improvement strategy, and (2) alternative school improvement strategies

may be more cost-effective and yield more positive results. Nonetheless the use of traditional teacher evaluation methods to assess and improve teacher effectiveness remains a focus of school improvement today.

Teacher Evaluation

The purpose of teacher evaluation is quality assurance and professional development (Danielson, 2001; Rowley, 2010). Lunenburg (2006) states performance appraisal is "the process of evaluating the contribution employees have made toward attaining the school's goals" (p. 750). Lunenburg (2006) cites several reasons to evaluate teachers including;

a) Justification of selection techniques in hiring personnel,
b) Input for determination of individual and organizational staff development needs,
c) Gauges the effectiveness of the individual and organizational staff development,
d) Serves as a basis for making decisions about salary, merit , promotions, transfers, and terminations,
e) Communicates the performance of employees and suggestions for improvement.

Well-designed teacher evaluation programs can aid in improving teacher performance (Taylor & Tyler, 2012). However, Mahar and Strobert (2010) find that traditional evaluations methods are not effective in providing feedback related to daily work, provide little guidance toward improvement of practice, provide vague feedback, and provide little relevance or impact on their practice. In a study by Arnau et al. (2004), teachers expressed their dissatisfaction with

traditional evaluation methods because they craved feedback that they did not feel was present. In addition, these evaluation programs have failed because of neglect in completion and highly negative environments with low levels of trust in administrators (Danielson, 2001).

Alternative data sources can be used in the evaluation of teaching to develop an understanding of a teacher's performance in addition to data gathered during evaluative observations (Eller & Eller, 2015). A study by Master (2013) found that some teacher evaluation criteria was weighted differently among evaluators, suggesting that in order to improve the reliability of teacher evaluation, multiple data sources from multiple measures be used in assessing teacher quality. Eller and Eller (2015) recommend several alternative data sources to help "understand the whole picture and provide a comprehensive view of a teacher's performance" (p. 15):

a) Curriculum units
b) Student perceptions of the classroom
c) Student achievement data
d) Individual and team goals
e) Professional duties
f) Portfolios
g) PLC work

Other data sources include work in leadership roles, work in student mentorship roles, or collectable data from any other professional practice (Eller & Eller, 2015).

360 evaluation. In addition to alternative data sources, information and feedback for evaluation should also come from other people who are in contact with the teacher including

students, parents, peer teachers, support staff, and building administrators (Mahar & Strobert, 2010; Manatt, 2000). Mahar and Strobert (2010) found statistically significant differences in support of 360-degree feedback model over the traditional model in providing feedback that promotes professional growth, assisting teachers in identifying professional development needs, and focusing on student achievement. The 360 evaluation feedback "can enhance a district's performance evaluation system by helping gain agreement on expectations, using a broader range of information and facilitating open discussion" (Manatt, 2000, p. 10).

Formative and summative teacher evaluation. Summative evaluations are used to place a final score or grade on the performance of a teacher at the end of a period of time (Eller & Eller, 2015). Formative evaluation is an ongoing process by which teachers utilize information about their performance to measure the success of learning intentions in relation to expectations as well as make adjustments based on that information (Eller & Eller, 2015; Hattie, 2008).

Four common research-based evaluation models are: the Marzano model, the Danielson model, the Strong model, and the Marshall model (Eller & Eller, 2015). Each of the models has unique teaching performance standards. A research-based evaluation model can provide common language for professional dialogue and enhance consistency and objectivity to the teacher evaluation process (Rowley, 2010).

Administrators have been critical of the evaluation tools used to evaluate teachers. Range et al. (2011) cites a lack of differentiation among teachers in evaluation tools by grouping all of the teachers into one group. In addition, "the difficulties in implementing differentiated supervision include school district evaluation procedures that treat all teachers the same" (Range, 2013, p. 75). Despite the dissatisfaction with the lack of useable feedback (Arnau et al. 2004) and

low levels of trust within administration of traditional teacher evaluation methods (Danielson, 2001), they are still widely used.

The issue of trust in teacher evaluation. The behavior and sincerity of administrators at pre- and post-observation conferences matter because in many schools, the practice of teacher evaluation has failed to accomplish its two main goals: monitor performance for personnel decisions and support teacher efforts to improve classroom teaching (Rowley, 2010). There is a need for trusting relationships to ensure summative and formative evaluation opportunities accomplish these goals. A study by Mette, Range, Anderson, Hvidston, and Nieuwenhuizen (2015) highlighted the importance of a trusting relationship between teachers and administrators predicated on their findings that the ability to build capacity and self-reflect on instruction during post-observation meetings was the most important predictor of perceived effectiveness among administrators.

The role of the administrator is evolving in teacher evaluation. Noonan, Walker, and Kutsyuruba (2008) state "the nature of trust and the principalship has changed from one in which the principal is expected to know all the answers to one where the principal is the broker of information and relationships and a mediator of values and decision making" (p. 7). Teachers had thoughtful insights and were willing to think critically of their teaching when they trusted the administrators were not using the collaboration and peer coaching as an evaluative tool (Daniels et al., 2013). Daniels et al. (2013) found the support and trust of administrators as an essential component, "As the participants came to realize that… principals expected honesty in terms of teachers' challenges, the conversation became more substantive. Teachers focused less on hiding concerns and more on seeking viable solutions for on-going challenges" (p. 273).

Supervising for Improvement

Accountability standards bring to light the need for specific development, remediation, and evaluation for all teachers- but specifically those in special cases. Marginal teachers and beginning teachers are in situations where there is a need for special attention to their professional practice to help them improve.

Marginal employees. Teachers who perform slightly below expectations in one or more areas are referred to as marginal teachers (Eller & Eller, 2015). A study conducted by Kaye (2004) concluded three types of marginal teacher: (1) teachers aware of their marginality and willing to change, (2) teachers aware of their marginality and unwilling to change, and (3) teachers who are unaware of their marginality.

Kaye (2004) named the three types of marginal teacher, respectively, flotsam marginal teachers, jetsam marginal teachers, and Club Med marginal teachers. An outline of marginal teacher types by Eller and Eller (2015) match the identifications set by Kaye, naming them the challenged, on-the-job-retirees, and resident experts, respectively. In nautical terms, flotsam refers to the items lost by shipwreck and jetsam refers to items thrown overboard and abandoned during times of danger (Kaye, 2004). Club Med is a reference to the company that specializes in vacation resorts.

Flotsam marginal teachers, or the challenged, are teachers who are deficient because of the circumstances surrounding their position. Teachers in this category are beginning teachers or teachers who are learning new roles, new skills, new curricula or new instructional techniques. These teachers are conscious of their deficiencies and are willing to seek assistance or change their practice to improve teaching.

Jetsam marginal teachers, or on-the-job-retirees, are teachers who understand they are deficient but are unwilling to adapt new strategies or change their teaching practice to meet the needs of the learners. Teachers in this category may be proficient in prior programs but are unwilling or lack the internal resources to adapt to new programs. These teachers are aware of their marginality but are unwilling to change to improve practice.

Club Med marginal teachers, or resident experts, are teachers who are unaware of their deficiencies and believe they are proficient or do not have the desire to become proficient. This type of marginality is marked by a flawed work ethic or ignorance to their unskilled nature of their practice. Kaye's (2004) study found these teachers had lack of interest, questionable motives, or simply did not care enough to improve their practice. In some cases, these teachers' marginality has been perpetuated by relationships with evaluators who continually mark them as proficient teachers.

Response to the marginal teacher. Deficient teaching occurs when a teacher is significantly below the performance expectations (Eller & Eller, 2015). Kaye's (2004) research classified five types of responses to marginal teaching. (1) Compensatory responses include a relocation, reassignment, reduction of class size, reduction of special-needs students to minimize the impact of the marginal teacher. (2) Formative responses include performance conversations and professional development opportunities. (3) Normative responses include a collective effort from the school staff to improve marginality. (4) Summative responses include the principal assisting change, directing change, or completing formal observations. (5) Disciplinary responses include the determination of employment action and are either overt, recommendation for dismissal, or covert, counseling into early retirement or resignation.

Valid and reliable supervision practices that are fair and provide due process protect both teachers and the school organization. A good system of evaluation is designed for improvement rather than to remove. Evaluation decisions may differ for beginning teachers whose professional development needs are different from veteran teachers.

Beginning teachers. Beginning teachers are in a challenging and vulnerable role as they enter the profession. Although enthusiastic and energetic, many have yet to hone their teaching skills. Mentoring programs are used to help beginning teachers' professional growth (Odell, 1990). Mentoring, as defined by Ostovar-Nameghi and Sheikhahmadi (2016), is "guidance, support and advice offered by the experienced mentor to the less experienced mentee for the purpose of developing his/her academic career" (p. 201). Odell (1990) states the existence of three primary foci for mentoring programs: "developing beginning teachers, addressing concerns of beginning teachers, and retaining beginning teachers" (p. 16). Gordon (2004) states, "It is essential that the mentor and beginning teacher be matched properly" (p. 108) because developing a personal, trusting relationship with the mentee is the most important aspect of mentoring.

Odell (1990) defines four phases of mentoring. Phase one is developing a trusting professional relationship with the mentee. Phase two is the identification of mentoring content as determined by the needs of the mentee over time. Phase three is the application of strategies by the mentor to help develop the mentee. Phase four is the disengagement of the mentor from the mentee after helping develop a support system.

The success of mentoring a beginning teacher depends on more than the mentorship program itself as explained by Odell (1990), "Mentoring teachers is a supplement to, not a

substitute for, school orientations, in-service training, university course, and formal and informal collegial collaborations that are supportive of learning to teach" (p. 28). A case study by Schlichte, Yssel, and Merbler (2005) found that a strong mentor, along with a strong support team, allowed the subject to teach successfully and develop a strong sense of job satisfaction. Qualitative data gathered by Polikoff, Desimone, Porter, and Hochberg (2015) found that mentor availability and evaluation were important components of high-quality mentor support.

The mentor also benefits from mentoring a beginning teacher. Mentoring improves the teaching of the mentor because mentors are forced to examine their knowledge base as well as analyze and reflect on their own teaching (Griffin, Wohlstetter, & Bharadwaja, 2001; Odell, 1990).

Kaye (2004) found that teachers perceived mentorship programs as slightly less-effective than peer coaching programs for improving marginality, leading to the belief that teachers perceive a greater ability to influence change than to direct it. Contrary to this finding, a case study by Stanulis and Ames (2009) found that a subtle and indirect approach to mentoring perpetuated satisfaction with the status quo, while a direct approach was a strategy that worked.

Professional Development for Teachers

Effective supervision practice is an important component of professional development. "A curricular/instructional change, mediated through well-designed staff development, can have a major and rapid effect on student learning" (Joyce & Showers, 2002, p.7). Heck (2009) found that in addition to individual teacher effectiveness being related to student achievement gains, the collective effectiveness of a teaching staff was also found to be related to student achievement gains. Successful staff development is a four step process: (1) assessing needs, (2) setting

objectives, (3) selecting methods, and (4) evaluating the program (Lunenburg, 2006, Joyce & Showers, 2002). Helping teachers improve can be accomplished through group supervision or individually.

Sparks and Louks-Horsely (1989) describe methods of professional development: individually guided staff development, observation/assessment, involvement in a development/improvement process, training, and inquiry. These are further detailed below:

1. Individually Guided Staff Development

The process of individually guided staff development follows several phases: the teacher identifies a goal, develops a plan to accomplish the goal, and follows through with the plan, then finishes with assessment and reflection of the success of the goal. This model of staff development has the underlying assumptions that individuals are the best judge of their own needs, are capable of self-directed and self-initiated learning, and will be most motivated to accomplish goals selected by and for themselves.

2. Observation/Assessment

This method of staff development uses observation of a teacher's instruction to gather data for subsequent conversation, reflection, and collaboration. The underlying assumptions for observation/assessment are that data will be collected by the observer for reflection and analysis, reflection is enhanced by other teacher's observations, both observer and teacher being observed benefit from this process through analysis and discussion, and the drive to engage in improvement is perpetuated by positive results of the process.

3. Involvement in a Development/Improvement Process

In this method of professional development, a problem is indentified by an individual, a team of teachers, or an administrator. The staff then formulates a response based on information gathered; the team proceeds with the planned response; then the process is completed with assessment of the success of the plan. The underlying assumptions of this process are that adults will learn best when they are presented with a problem that they need to solve, that proximity to a job will be the best way to understand what is needed to improve performance, and that teachers will develop skills and acquire knowledge by being involved with a school improvement or curriculum development process. A sense of ownership is developed when teachers are involved with curriculum development and are more likely to understand and apply it in an effective way (Gordon, 2004).

4. Training

Training is a method of professional development that uses an expert trainer to demonstrate or model a particular skill. The underlying assumptions of training are that replication of techniques is desired and that teachers can replicate the techniques. The classic one-shot training events have evolved to be "for awareness only" (Joyce & Showers, 2002, p.69).

5. Inquiry

This method is also referred to as action research (Tallerico, 2006). This process may be done individually or with a group. The teacher or teachers identify an area of interest, develop a method for experimentation, gather data, and then determine the effects of experiment. The underlying assumptions of inquiry are that teachers are able formulate valid questions and pursue objective answers about their professional practice.

Darling-Hammond and Richardson (2009) found research in support of professional development that:

a) Deepens teachers' knowledge of content and how to teach it to students.
b) Helps teachers understand how students learn specific content.
c) Provides opportunities for active, hands-on learning.
d) Enables teachers to acquire new knowledge, apply it to practice, and reflect on the results with colleagues.
e) Is part of a school reform effort that links curriculum, assessment, and standards to professional learning.
f) Is collaborative and collegial.
g) Is intensive and sustained over time. (p. 6)

The same analysis identified practices that do not support professional development:

a) Relies on a one-shot workshop model.
b) Focuses only on training teachers in new techniques and behaviors.
c) Is not related to teachers' specific contexts and curriculums.
d) Is episodic and fragmented.
e) Expects teachers to make changes in isolation and without support.
f) Does not provide sustained teacher learning opportunities over multiple days and weeks. (Darling-Hammond & Richardson, 2009, p. 6)

Birman, Desimone, Porter, and Garet (2000) found that effective staff development can be of any form so long as it has appropriate duration, subject-matter content, active learning, and coherence. A national study of mathematics and science teachers by Garet, Porter, Desimone,

Birman, and Yoon (2001) indicated that "sustained and intensive professional development is more likely to have an impact…than is shorter professional development" (p. 935). Professional learning and development that is collaborative and job-embedded led to improved practice, student achievement gains (Darling-Hammond & Richardson, 2009), and is a "welcome change" from expert workshop-type sessions (Kelley & Cherkowski, 2015). Staff development does not automatically lead to student achievement; implementation of the strategies is required (Joyce & Showers, 1995). Joyce and Showers (2002) state four conditions that must be present in staff development for it to have a significant effect on student achievement:

1. A community of professionals comes together who study together, put into practice what they are learning, and share the results.
2. The content of staff development develops around curricular and instructional strategies selected because they have high probability of affecting student learning and- as important- student ability to learn.
3. The magnitude of change generated is sufficient that the students gain in knowledge and skill is palpable. What is taught, how it is taught, and the social climate of the school have to change to the degree that the increase in student ability to learn is manifest.
4. The processes of staff development enables educators to develop the skill to implement what they are learning. (p. 4)

Evaluation of teacher supervision programs and practices. The intended outcome of staff development is student growth; as a result, implemented professional development programs must be evaluated for effectiveness (Joyce & Showers, 1995). "The primary reason to

monitor implementation of innovations is to interpret their effect on students" (Joyce & Showers, 2002, p. 95). Formative evaluation of a program is done to monitor and adjust a program while it is being implemented. Formative evaluation should be done within and throughout each phase of development and implementation (Gordon, 2004).

Summative evaluation of a school improvement program must be done to judge the value of the program. Summative evaluation is used to make decisions about the future of the program—whether or not to continue with minor revisions, continue with major revisions, or terminate the program and implement a different one (Gordon, 2004). Data collected for formative evaluation of a program can be used in the summative evaluation. Gordon (2004) suggests using multiple data sources in formative and summative evaluation.

When teachers are empowered to determine their own professional development, Colbert, Brown, Choi, and Thomas (2008) found an increase in student achievement and that the participating teachers felt "their passion for teaching and for improving the lives of their students was greatly enhanced" (p. 148). Professional development has more successful implementation when it is continuous and collaborative (Darling-Hammond & Richardson, 2009; Kelly & Cherkowski, 2015). A case study by Kelly and Cherkowski (2015) explained "the difference between learning from an expert in a one-day workshop and working in an ongoing way with teachers in the classroom next door is often a level of trust needed for the real process of learning as a teacher to occur" (p.19). Using prescribed; work-shop style trainings with little follow up can raise questions and doubts, and stifle teacher improvement (Colbert et al., 2008; Darling-Hammond & Richardson, 2009). However, when training is implemented over multiple workshop sessions, with trainers who become heavily involved with the implementation, develop

genuine collegiality, and have coaching opportunities built in, there has been success (Scanlon et al., 2005).

Coaching. Peer coaching is collaborative work involving peer observation, collection and analysis of data, and problem solving to improve teaching and learning (Gordon, 2004; Joyce & Showers, 2002). Teacher coaching is used in multiple different contexts, all of which make special concern "that they not be confused with or used for the evaluation of teachers" (Joyce & Showers, 1995, p. 122).

Coaching is practiced in the traditional peer observation method of pre-observation conference, observation, and post-observation conference (Eller & Eller, 2015). Gordon (2004) summarized the many different models of peer coaching all subscribe to the same key principals:

a) Peer coaching is non-evaluative.

b) Peer coaching is collegial in nature.

c) Peer coaching is classroom based.

d) Peer coaching makes use of classroom observation data.

e) Peer coaching is non-judgmental.

f) Peer coaching is based on a trust relationship among peers.

Contexts for coaching are technical coaching, collegial coaching, and challenge coaching (Garmston, 1987); all address an improvement in collegiality and professional dialogue among teachers and administrators. According to Garmston (1987), technical coaching is a practice used to accomplish transfer of specific teaching methods following a training workshop. Collegial coaching aims to improve and refine existing teaching practices by developing self-initiated reflection and stimulate self-coaching by working in pairs with a teacher coach. Challenge

coaching identifies and develops solutions to resolve persistent instructional problems within teams to help promote improvements for other teachers.

Collaboration. When the correct structures and process are in place, collaboration in instructional teams is an effective form of professional development that improves practice and effects student achievement (Colbert et al., 2008; Darling-Hammond and Richardson, 2009; Ronfeldt, Farmer, McQueen, & Grissom, 2015; Slater, 2004). A Goddard, Goddard, & Tschannen-Moran (2007) study revealed a "positive and statistically- significant relationship between teacher collaboration and student achievement" (p. 891). Kohler, Crilley, Shearer, and Good (1997) found that refinement to instructional practice "was more likely to occur under conditions of collaboration than independence, and can be sustained and even extended over time" (p. 248).

Slater's (2004) findings from a qualitative study state that a common goal within the group "was instrumental in the formation of collaborative relationships... [it] binds people together in their work and enables them to achieve positive outcomes" (p. 9). A case study by Kelly and Cherkowski (2015) found that the shared-goal component of collaborative programs develops a sense of peer accountability which leads to organic team planning and reflection. Kelly and Cherkowski (2015) also found that conversations between teachers developed depth and increased in frequency outside of scheduled sessions.

Relationships and trust are foundational components to the productivity and success of collaboration (Kelly and Cherkowski, 2015; Slater, 2004). Creating an environment of support and collaboration has a positive effect on teachers' attitudes toward their practice (Daniels et al., 2013). Committed, trusting, and supportive collaboration partners empower teachers to take

risks, try new instructional methods, and improve teaching practice (Kelly & Cherkowski, 2015; Slater, 2004; Zwart et al., 2009).

The student-achievement gains from teacher collaboration are reported to be associated with the quality of collaboration. Dufour (2011) states "Providing educators with structures and time to support collaboration will not improve schools unless that time is focused on the right work" (p. 61). Teachers who report higher-quality collaboration demonstrate better achievement gains than those who report worse-quality collaboration (Ronfeldt et al., 2015). This same study suggests that "the achievement gains of a given teacher are, at least in part, a product of the collaborative environment that surrounds her, regardless of the relative extent to which the teacher engages with said environment" (Ronfeldt et al., 2015, p. 510).

Non-voluntary collaboration prescribed from supervisors can lead to "frustration, betrayal, uselessness, cynicism, disappointment, pain, and anger" (Slater, 2004, p. 9), as well as an unnatural collaborative environment referred to as contrived collegiality. The absence of an established common goal in collaborative teams results in "fake collaboration" with superficial outcomes (Slater, 2004). Critics of collaboration believe that forced collaboration works in violation of their professional autonomy and their right to work in isolation (Dufour, 2011).

Teacher isolation. The dominant school culture of individualism has teachers working in isolation. This culture of isolation has teachers rarely observing and giving feedback to one another, seldom taking part in true collaboration as pairs or groups, and relies on student feedback as the only feedback the teacher receives- leading to uncertainty in instructional practice (Gordon, 2004). Teacher isolation, defined by Flinders (1988), has two orientations. The first is the condition in which the teachers work, which entails the structures of the school and

the opportunity to interact with colleagues; the second refers to a psychological state based on the perceptions and experiences of collegial interaction. Literature states that there are many causes for teacher isolation (Ostovar-Nameghi & Sheikhahmadi, 2016). Case studies completed by Schlichte et al. (2005) revealed that professional isolation, in both orientations, is capable of causing a sense of helplessness and insignificance leading to dissatisfaction, discouragement, and burnout. There have been no studies indicating higher student achievement when teachers work in isolation (Dufour, 2011).

***Reflection*.** Daniels et al. (2013) found that a collaborative-reflection structure created space for critical reflection, in turn allowing the thinking which occurred to have "an immediate impact on instructional planning and delivery" (p. 273). Intentional reflection allows teachers to articulate areas of change or growth in their professional practice (Daniels et al., 2013). Collaborative discussion leads to increased trust and aids in the development of relationships amongst the participants (Scanlon et al., 2006). A community founded on trust allows for vulnerability and honesty amongst the members which allows meaningful learning and, often, collaborative problem solving for struggles shared by colleagues (Kelly & Cherkowski, 2015). Professional learning is advanced by reflection on action, and reflection is promoted by opportunities to take part in collaborative dialogue (Danielson, 2001).

Literature Review Summary

This review of literature is focused on an overview of school improvement, teacher evaluation, and professional development. This review uses research and publications ranging in date from 1979 to the present day.

In response to reports outlining the failures of public schooling, the foundation of effective schools research was set by observations made by Edmonds (1979) and Brookover and Lezotte (1979). The government has also responded to reports of failing public schools by initiating and authorizing school reform efforts. Educational reform for school improvement has led to a shift toward a climate of accountability involving standards, assessment, and teacher evaluation.

Research-based teacher evaluation models have been developed for formative and summative performance-appraisal purposes. Teacher evaluation is evolving to expand performance appraisal based on a single lesson observation to including additional data from alternative sources (Eller & Eller, 2015) and individuals in contact with the observed teacher (Mahar & Strobert. 2010; Manatt, 2000). Despite research claims that traditional teacher evaluation does not lead to improvement (Hallinger et al., 2014), this process is still widely used.

School improvement efforts have utilized the professional development methods to increase student and teacher learning and performance. Successful methods of professional development have included collaboration and professional dialogue as a foundation for school improvement.

The research used in this review of literature is summarized with date, author, and their findings in Tables 1-6.

Table 1

A Summary of Research Literature Regarding School Improvement

YEAR	RESEARCHER	FINDINGS
2016	Darrow	Every Student Succeeds Act reduces role of federal government in education.
2016	Dragoset et al.	No clear evidence between student outcomes and state involvement in Race to the Top
2014	Hallinger, Heck, & Murphy	No evidence was found to support teacher evaluation as school improvement strategy and alternative school improvement strategies may yield better results.
2011	Polikoff, Porter, & Smithson	Dissonance in the alignment of standardized assessment to content standards and cognitive demand levels.
2011	Range, Scherz, Holt, & Young	Description of the main frustrations with teacher evaluation.
2010	Baringer	Replicated success of effective schools research school improvement implementation.
2010	Franco	Concerns about the effectiveness in schools ushered in accountability era of education.
2010	Johnson & Rao	Data gathered from assessment is used gauge success and to make decisions.
2009	Heck	Teacher effectiveness is related to student achievement.
2008	Berliner	Description of the standards movement.
2008	Nichols	No clear evidence high stakes testing improves student learning.
2008	Porter & Polikoff	Key components and provisions of No Child Left Behind.
2008	Shackelford	Focus of Goals 2000 Act.
2008	Stevenson, Schertzer, & Ham	The No Child Left Behind Act was a major expansion of federal role in education.
2008	York-Barr, Sommerness, & Hur	Climate of education shifting toward accountability.
2006	Ganley, Quintanar, & Loop	The No Child Left Behind Act recognizes teacher variables in student success.
2005	Russo	Elementary and Secondary Education Act was first large-scale show of support from federal government.

2001	Danielson	Legislators and policymakers view teacher evaluation as quality assurance.

Table 1 Continued

YEAR	RESEARCHER	FINDINGS
2001	Lezotte	Research on effective schools refined seven correlates for successful schools.
2001	Linn	Reasons policymakers favor assessment.
2000	Darling-Hammond	Variables in the assessment of teaching force show strong predictive relationship for student outcomes at the state level.
1995	Joyce & Showers	Improving assessment changes how student achievement is measured rather than how and what is learned.
1994	US Department of Education	The eight goals of the Goals 2000 Act.
1990	Austin & Reynolds	Review of literature on second wave of effective schools research refined twelve characteristics.
1979	Brookover & Lezotte	Ten areas of difference between improving and declining schools.
1979	Edmonds	Characteristics present in effective schools.
n.d.	Common Core State Standards Initiative	The goals and description of the Common Core State Standards Initiative

Table 2

A Summary of Research Literature Regarding Teacher Evaluation

YEAR	RESEARCHER	FINDINGS
2015	Eller & Eller	Summative evaluation data from multiple sources will be a better reflection of performance than from a single evaluation.
2015	Mette, Range, Anderson, Hvidston, & Niewenhuizen	Importance of trusting relationship between teachers and administrators in teacher evaluation.
2014	Hallinger, Heck, & Murphy	Two key conclusions of teacher evaluation as a school improvement strategy.
2013	Master	Evaluation criteria have different weights among evaluators.
2013	Range	School district evaluation procedures treat all teachers the same.
2012	Taylor & Tyler	Well-designed teacher evaluation programs can aid in improving teacher performance.
2011	Range, Scherz, Holt, & Young	Lack of differentiation in evaluation tools groups all teachers into one.
2010	Rowley	Teacher evaluation is for quality assurance and professional development.
2010	Mahar & Strobert	Statistically significant differences in support of 360-feedback.
2008	Hattie	Use of formative evaluations to improve teaching.
2008	Noonan, Walker, & Katsyuruba	The evolving nature of administrative trust in teacher evaluation.
2006	Lunenburg	Definition of and reasons for performance appraisal.
2004	Arnau, Kahrs, & Kruskamp	Teachers dissatisfied with traditional evaluation because they did not receive the feedback they craved.
2000	Manatt	Feedback from multiple sources for evaluation enhances evaluation system.

Table 3

A Summary of Research Literature Regarding Professional Development

YEAR	RESEARCHER	FINDINGS
2015	Eller & Eller	Description and process of peer coaching.
2015	Kelly & Cherkowski	Continuous and collaborative professional development is more successful, and is a welcome change from traditional workshop-type professional development.
2015	Minnesota Department of Education	Outline of Job-Embedded Professional Development.
2009	Darling-Hammond & Richardson	Synthesis of what research in the field of professional development does and does not support as effective strategies.
2009	Heck	The collective effectiveness of the teaching staff has effects on student outcomes.
2008	Colbert, Brown, Choi, & Thomas	Prescribed workshop style professional development can raise questions and doubts and stifle teacher improvement.
2006	Lunenburg	Four steps of professional development.
2005	Scanlon, Gallego, Duran, & Reyes	Three problems with training the training method of professional development: lacks common purpose, little time for feedback, and lack of a genuine relationship.
2004	Gordon	Involvement in curriculum development leads to a deeper understanding and application.
2004	Kaye	Outline of the three types of marginal teacher and the typical responses to them.
2004	Slater	Collaboration is an effective form of professional development.
2002	Joyce & Showers	Quality staff development can have a major and rapid effect on student learning.
2001	Garet, Porter, Desimone, Birman, & Yoon	Sustained and intensive professional development is more likely to have an impact than shorter professional development.
2000	Birman, Desimone, Porter, and Garet	Professional development of any form can be effective.
2000	Porter, Garet, Desimone, Yoon, & Birman	Professional development experiences in schools have varying quality and effectiveness from year to year and teacher to teacher.

Table 3 Continued

YEAR	RESEARCHER	FINDINGS
1997	Kohler, Crilley, Shearer, & Good	Focusing on different aspects of their instructional approach during peer coaching led to increased number and likelihood of procedural refinements.
1995	Joyce & Showers	Student achievement is the intended outcome of professional development.
1989	Sparks & Louks-Horsely	Analysis of five different types of staff development for teachers.
1987	Garmston	Contexts and descriptions of teacher coaching.

Table 4

A Summary of Research Literature Regarding Collaboration

YEAR	RESEARCHER	FINDINGS
2016	Ostovar-Namegi & Sheikhahmadi	There are many causes for teacher isolation.
2015	Kelly & Cherkowski	Conversations developed depth and increased in frequency outside of scheduled sessions.
2015	Ronfeldt, Farmer, McQueen, & Grissom	Higher quality collaboration led to better achievement than lower quality collaboration.
2013	Daniels, Pirayoff, & Bessant	Collaboration and support has a positive effect on teachers' attitudes toward their practice.
2011	Dufour	Providing educators with structures will not create improvement unless there is focus on the right work.
2009	Zwart, Wubbels, Bergen, & Bolhuis	Committed, trusting, and supportive collaboration partners lead to risks, new methods, and practice improvement.
2008	Colbert, Brown, Choi, & Thomas	When structures and processes are in place, collaboration is effective form of professional development.
2007	Goddard, Goddard, & Tschannen-Moran	Statistically significant relationship between teacher collaboration and student outcomes.
2004	Gordon	Culture of individualism and isolation.
2005	Scanlon, Gallego, Duran, & Reyes	Collaborative discussion led to increased trust.
2005	Schlichte, Yssel, & Merbler	Isolation causes helplessness and insignificance, dissatisfaction, discouragement, and burnout.
2004	Slater	Collaboration is effective form of professional development.
2002	Horn, Dallas, & Strahan	Teaching is often a solitary function.
1997	Kohler, Crilley, Shearer, & Good	Refinement of instructional practice was more likely to occur under conditions of collaboration than independence.
1988	Flinders	Two orientations for teacher isolation.

Table 5

A Summary of Research Literature Regarding Mentorship

YEAR	RESEARCHER	FINDINGS
2016	Ostovar-Namegi & Sheikhahmadi	Definition of mentoring.
2015	Polikoff, Desimone, Porter, & Hochberg	Mentor availability and evaluation were key components of high quality mentor support.
2009	Stanulis & Ames	Mentor observation is important in supporting the development of beginning teachers in the work of mentoring.
2005	Schlichte, Yssel, & Merbler	Strong mentor and strong support team lead to successful mentorship.
2004	Gordon	Importance of matching mentors and mentees.
2001	Griffin, Wohlstetter, & Bharadwaja	Mentoring benefits the mentor.
1990	Odell	Explanation and benefits of mentor programs.

Table 6

A Summary of Research Literature Regarding Peer Observation

YEAR	RESEARCHER	FINDINGS
2015	Golparian, Chan, & Cassidy	Discussion of best practices for peer observation of teaching.
2014	Brix, Grainger, & Hill	Implementation of peer observation has troubles because of increased workloads and scheduling issues.
2014	Eri	Reflection on and description of the peer observation process in higher education states expresses confidence in the importance of the process.
2013	Daniels, Pirayoff, & Bessant	The use of critical, intentional reflection following peer observation allows teachers to self-evaluate their practice to make positive change.
2012	Salvador	Peer observation is a combination of multiple professional activities and is not time bound to the period of observation.
2011	Chamberlain, D'Artrey, & Rowe	There is ambiguity in the purpose and a lack of a support structure at one university that implements the peer observation process.
2009	Murray, Ma, & Mazur	Study found no association with improvement in student mathematics achievement, a lack analysis among peers, and a lack of depth in conversation among peers.
2009	Zwart, Wubbels, Bergen, & Bolhuis	Teachers could experiment with alternative teaching strategies, adding new instructional skills and strategies to their repertoire.
2007	Siddiqui, Jonas-Dwyer, & Carr	Structure of peer observation; pre-observation, observation, and post-observation where self-reflection is used to foster discussion about practice.
2006	Tallerico	The goal of peer observation is to have a second set of eyes observe a lesson for discussion and reflection.
2004	Arnau, Kahrs, & Kruskamp	Peer coaching gave veteran teachers meaningful feedback, motivation for ownership in learning, and increased trust and morale.
2004	Gordon	Peer observation is used to help develop instructional practices of new teachers.
2002	Horn, Dallas, & Strahan	Peer observation promotes dialogue between and among teachers in a non-threatening manner.
2001	Slater & Simmons	Peer observation helped teachers overcome teacher isolation.
1999	Cosh	Discussion of current peer observation models with a rationale for new models to determine teacher development should come from within, through reflection, not from above.

Chapter 3: Methods

This study is designed to examine teacher perceptions of their experience in a year-long peer observation program designed to improve communication and collaboration among teachers. Information will be gathered using a mixed-method approach that entails a Likert-type instrument and selected interviews. This chapter discusses the context of the study, the methods and procedures for gathering data from participants, and the analysis of data.

Context of the Study

This study is done on the peer observation and subsequent collaboration-opportunity components of a newly implemented teacher-evaluation process, professional learning community program, and adoption of the Q-Comp program in a school district. The timeline of implementation has the new teacher-evaluation model and professional learning community program beginning during the 2014-2015 school year and the Q-Comp adoption during the 2015-2016 school year.

Teacher evaluation model. The Minnesota Department of Education mandated implementation of new teacher-evaluation programs beginning in the school year 2014-2015. School districts had the option follow the state teacher-evaluation model or develop their own teacher-evaluation model (Minnesota Legislature [122A.40 Subd. 8], 2015). The school district in the study developed its own teacher evaluation model for continuing-contract teachers.

Professional learning community program. The school district in this study put into action a professional learning community (PLC) program, teaming course-alike teachers with the goal of improving collaborative efforts and improving practice to raise student achievement. Teacher teams meet twice monthly for periods of forty-five minutes throughout the school year.

Q-Comp. In addition to the new teacher-evaluation model, the district voted to implement Q-Comp, a voluntary Minnesota School Improvement initiative. The Q-Comp model paralleled the newly adopted teacher evaluation process in many ways.

To maintain focus on the purpose of this study, the peer observation component will be highlighted in both models. The three year evaluation cycle, as it pertains to peer observation, for continuing contract teachers takes into account requirements for both the new teacher-evaluation model and the Q-Comp program. In the first year of the cycle, the teacher goes through the peer observation process with her or his PLC leader. In the second year of the cycle, the teacher goes through the peer observation process with another cycle-year two teacher. The final year of the cycle has no peer observation component, as it is based on summative evaluation from the school's administrators.

Probationary staff members undergo the peer observation process, referred to in this study as mentor observation, with their mentors each year of their probationary term in addition to three summative evaluations completed by a licensed administrator. Mentor observation is a one-way process in which the mentor teacher observes the mentee, but the mentee does not reciprocate as the observing teacher. The mentor observation process follows the same structures and protocols as peer observation.

At the time of the study, every teacher has taken part in the peer observation process in some capacity at least once. Each teacher has had the opportunity to be the observing teacher, the teacher being observed, the mentor teacher, or the mentee being observed. In some instances, teachers have completed the process multiple times holding various roles.

Research Questions

This study is designed to answer the following research questions.

1. To what extent do teachers perceive the overall effectiveness of participating in a peer observation process?
2. To what extent do teachers perceive the overall quality of their professional interactions, communications feedback, or discussions [with or from or by] peers as a result of participating in this process?

Survey and Interview Instruments

This study uses mixed methods involving survey research and qualitative analysis to gather insights and examine the perceptions of teachers on peer observation and collaboration. The survey instrument and interview protocol are developed to gather detailed information to help examine the research questions.

Questionnaire. The twenty-eight item questionnaire asks a variety of questions pertaining to teachers' experience with peer observation and peer collaboration to gather data as reference for this study. The only demographic question is dedicated to identifying the role or roles that individuals have held during the peer observation process. The purpose of the demographic question is twofold: one, to develop an understanding of the variety of roles that individuals have held; and two, to ease the participants into the questionnaire. Three optional items on the questionnaire are open-ended questions allowing the participants an opportunity to discuss any thoughts they have about the benefits of the program, the challenges of the program, and any adjustments that should be made to the program. The purpose of including the open-ended questions on the questionnaire is to provide an additional opportunity for discovery of

themes to help answer the research questions. Twenty-four questionnaire items use a six-level Likert scale. The Likert scale questions are distributed among three major topics: structures and procedures, quality of collaboration, and improvement of practice.

Rating scale. The instrument uses a Likert-type rating scale where participants respond to a statement by choosing their extent of agreement. The rating scale consists of six levels: Strongly Disagree, Disagree, Somewhat Disagree, Somewhat Agree, Agree, and Strongly Agree. The rating scale purposely contains six choices to force the participants to decide whether they feel favorably or unfavorably about a statement. The three choices in agreement and three choices in disagreement allow the individual to more accurately describe their extent of agreement or disagreement.

Instrument items. The items on the questionnaire are used to develop understanding to answer the research questions. The first item is a general demographic question to find out the range of different roles the individuals have held in the peer/mentor observation process. Questionnaire items 2 through 25 are the Likert-scale questions, broken down into three major sections: (1) processes and structures, (2) quality of collaboration, and (3) improvement of practice. Items 2 through 8 are statements pertinent to finding if the structures and processes in place are conducive to effective practice of peer/mentor observation. Items 9 through 16 are statements regarding the collaborative practice of the individuals. These items regard the ability, the practice, and the quality of collaboration as a result of the peer/mentor observation program. Items 17 through 25 describe the improvement of practice that accompanies the peer/mentor observation process. Items 26 through 28 are optional open-ended questions regarding the

benefits, challenges, and potential changes to the peer/mentor observation process. See the complete instrument below with scale:

Table 7

Questionnaire Items With Response Choices

	Item
1.	Which role(s) have you taken in peer/mentor observation? (Check all that apply) Teacher being observed by peer. Teacher observing peer. Probationary teacher being observed by mentor. Mentor observing probationary teacher. I have not taken part in the peer/mentor observation process.
2.	I have a clear understanding of the rationale for peer/mentor observation. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
3.	I have a clear understanding of the purpose for the pre-observation and post-observation meeting. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
4.	Meaningful conversations take place at the pre-observation and post-observation meeting. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
5.	The pre-observation and post-observation meetings are of adequate length. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
6.	The observation by a peer or mentor happens in a timely fashion after the pre-observation meeting. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
7.	The post-observation meeting happens in a timely fashion after the observation. (Within 72 hours) Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
8.	There is adequate private and distraction-free space to hold the pre- and post-observation meetings. Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree

Table 7 Continued

	Item
9.	There is opportunity to collaborate with peer/mentor observation partners.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
10.	I have quality professional interactions with my colleagues.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
11.	I am able to give/receive direct and honest feedback to/from my peers.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
12.	Observing or being observed by another teacher has led to improved collaborative conversation with that teacher.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
13.	The peer observation process has allowed for more in-depth collaborative conversation between teachers.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
14.	I take part in continuous and specific discussion of teaching with colleagues.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
15.	I design, develop, and evaluate instructional materials with my colleagues.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
16.	Collaborative conversations and interactions have improved my practice.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
17.	The peer observation process has allowed me to critically reflect on my teaching.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
18.	I always reflect on my teaching practice even prior to taking part in the peer/mentor observation process.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
19.	I have implemented changes to my teaching practice based on discussions from the peer observation process.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree

Table 7 Continued

	Item
20.	I have implemented changes to my teaching practice based on critical self reflection taken place during the peer observation process.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
21.	I have implemented changes in my teaching practice based on collaborative conversations with peers.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
22.	The peer observation process is a valuable professional development opportunity.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
23.	Collaborative conversations with my colleagues have improved with the implementation of the peer observation process.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
24.	The data from the peer/mentor observation process should be shared with my supervisor(s).
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
25.	The data from the peer/mentor observation should be used by my supervisor(s) as a component of my summative performance evaluation.
	Strongly Disagree Disagree Somewhat Disagree Somewhat Agree Agree Strongly Agree
26.	How have you benefitted from taking part in the peer/mentor observation process? (Open-ended)
27.	What Challenges did you encounter during the peer/mentor observation process? (Open-ended)
28.	What improvements would you like to see made to enhance the quality of the peer/mentor observation process? (Open-ended)

Interview protocol. The interview protocol consists of eight brief, open-ended items. These questions are developed to investigate the perceptions and attitudes toward peer observation in greater depth to help answer the research questions.

Protocol items. Interview questions 1, 3, 4, 5, 7, and 8 gather description about the effectiveness of the peer/mentor observation process on the individuals teaching. Interview

questions 2 and 6 gather information about the effectiveness of the peer/mentor observation process on collaborative conversations among professionals.

Table 8

Interview Protocol Items With Probing Questions

	Item
1.	Describe your experience with the peer/mentor observation process.
	Why do you feel this way?
	Is it working? Why or why not?
2.	What is your perception of the overall effectiveness of peer observation on collaboration with peers?
	Why do you feel this way?
3.	How has the peer/mentor observation process affected your teaching practice?
	Have you developed any new strategies?
	Have you adjusted any previous strategies that you have used?
4.	In what ways have you benefitted from the peer/mentor observation process?
	How have you utilized these benefits?
	Do you notice any changes in student outcomes?
5.	What are some of the challenges you encountered during the peer/mentor observation process?
	How did you manage them?
	Would you change your approach next time?
6.	In terms of collaboration with peers, in what ways have the professional interactions changed after taking part in the peer/mentor observation process?
	How do you know?
	Have the conversations changed?
7.	What are the motivating factors for you in the peer/mentor observation process?
8.	In what ways would you alter the peer/mentor observation process to improve upon it?

Instrument Reliability

Reliability measures the internal consistency and statistical integrity of an instrument. This study uses a Cronbach (1951) alpha procedure to assess the statistical reliability of the 28-item questionnaire. A Cronbach alpha is used when an instrument does not contain a right or wrong answer like a teacher evaluation instrument or perception survey- unlike a test such as a math test which contains a right answer. What is considered good reliability is arbitrary, it is generally accepted that a minimum alpha coefficient between 0.65 and 0.80 is considered moderate to strong reliability (Goforth, 2015). Therefore, an instrument with a correlation coefficient between 0.75 and 0.98 has statistical integrity. For the purpose of calculating reliability, the Likert scale will be converted into numerical point values. The values scale from 1 to 6: 1=Strongly Disagree, 2=Disagree, 3=Somewhat Disagree, 4=Somewhat Agree, 5=Agree, and 6=Strongly Agree. The final survey instrument will not have point values attached to the rating scale.

Validity

Validity is established using the review of literature to identify items for the survey instrument and the interview protocol (see Appendix C and D for instrument and interview items associated with literature citations). This study specifically uses both internal and external validity procedures to establish truthfulness and accuracy of the items by analyzing the research literature (internal) and by conducting a pilot test (external) of the questionnaire.

Pilot test. The survey instrument was piloted at the middle school in the same school district as the high school in this study. The middle school teachers, under the same contract as the high school teachers, take part in all of the same teacher development processes and will therefore have an understanding of the items asked on the survey instrument. The pilot survey

was administered to verify clarity of instructions, format, appropriate language, and overall quality of the survey instrument. Question items were added to the pilot asking for feedback on the clarity, validity, and readability of the individual questions on the instrument. These items are on the pilot only and are used for feedback on the instrument itself. Data gathered from the pilot of the survey instrument is not included in the data gathered from the administration of the survey for this study.

Securing Participation

Permission to administer the survey to the high school teachers was granted from the district superintendent. Participants in this study are all currently employed teachers at the selected high school at the time of the data collection. All communication for this study will be completed through e-mail. The staff e-mail addresses will be gathered from the district's staff directory. The recruiting process for the survey is different than the recruiting process for the interviews.

Survey participant recruitment. A cover letter was developed and sent via e-mail to recruit participation in the study, to explain the rationale and need of the study, and to outline the components of implied consent. The questionnaire link was sent via school e-mail to all the teachers at the high school. By completing the questionnaire, individuals give their consent for participation in this study.

Interview participant recruitment. The interview participants are selected using a convenience-sample based on a criterion sampling technique. The criterion used to select participation in the interview protocol is based on the roles the individuals have had in the peer/mentor observation process. A cover letter was developed and given to the participants in

the interview protocol explaining the rationale and need for the study, as well as outlining the components of informed consent. The interview protocol participants give their consent by signing an informed consent form.

The personal nature of the responses to the questionnaire and the interview protocol require the participants to know that the researcher will be the only individual with access to identifiers, raw data, and audio recordings. Participants in the study are informed that the data will be presented as a summary in aggregate form. Individuals in the interview will be informed that audio recordings will be transcribed with names removed. Participants are informed that they could remove themselves from the study at any time.

Sampling Framework

All teachers at the high school will be invited to participate in this study. The e-mail addresses of the subjects are taken from the district database. The survey portion of this study will use no sampling techniques as it is a population study of the teachers of the high school. Criterion sampling techniques are used to identify the subjects for the interview protocol. Within the criterion, convenience sampling is used to secure participation from the individuals. The criterion used to select participants in the interview protocol is based on the roles that the teachers have held. Included in the sample are: one teacher who has been the peer observer, one teacher who has been observed by a peer, one teacher who has been both the observing teacher and the observed teacher, one mentor teacher observing a mentee, and one mentee being observed by a mentor.

Collection of Data

A digital cover letter will be sent via e-mail to the population of teachers at the high school for the purpose of recruiting participation. The letter includes components of informed consent including; the purpose of the study, procedures, benefits, risks, use of results, confidentiality of information, and voluntary participation.

The internet-based application Google Forms is the platform used to administer and gather survey data. Those interested in involvement with the study will follow a link to the online questionnaire sent by e-mail. Participants have three weeks to complete the questionnaire. Reminder e-mails will be sent at the beginning of the second and third weeks to remind the potential participants of the opportunity to complete the questionnaire. A closing e-mail will be sent at the conclusion of the three week window. The Google Forms application places raw data gathered into Google Sheets, an online spreadsheet application, which has capabilities of displaying basic summary information. The data collected from the survey will be collected anonymously from the participants.

Those selected to take part in the interview will be contacted by e-mail to set up an appointment to interview. The interviews will be recorded using an audio recording application on a mobile device. The interviews are transcribed with names and identifiable information removed to protect the confidentiality of the participants. Participant titles (i.e. Participant A, Participant B, Participant C, Participant D, and Participant E) are used to report information from the interviews. The transcriptions of the audio recordings are used to gather information and observe trends to help answer the research questions.

Analysis and Treatment of Data

Data from the survey is organized by using Google Forms and Google Sheets. The first questionnaire item reports demographic information of the role(s) held in the peer/mentor observation process and organizes the different combinations of roles that the participants have held. The online applications have the capabilities of giving basic descriptive statistics from the survey. The Likert scale items, items 2 through 25, are converted to a numerical point scale (1=Strongly Disagree, 2=Disagree, 3=Somewhat Disagree, 4=Somewhat Agree, 5=Agree, and 6=Strongly Agree) to allow for basic descriptive statistics to be analyzed. The data is aggregated and analyzed by item only to support findings of the research questions. Items 26 through 28 gather open-ended responses from the participants. The data gathered from each of the questions is organized by emergent themes and reported as frequencies. Thematic analysis is used to analyze the interview transcriptions and determine major themes and responses to each of the questions to supplement the questionnaire results in answering the research questions. All results are given in aggregate form; ensuring individual identities are protected. The results of this study can only be generalized back to this particular setting.

Chapter 4: Results

This study was designed to examine teacher perceptions of their experience in a year-long peer observation and collaboration school improvement effort. The purpose of implementing professional development programs is to improve student achievement by improving teacher practice and learning. When new teacher development programs are implemented, they must be reflected upon to monitor the effectiveness of the program. A mixed-methods approach, consisting of a questionnaire and selected interviews, is used to gather data and descriptions from the staff at a secondary school. The questionnaire, consisting primarily of Likert-type items, collected data from the population of the staff and selected interviews gathered descriptions about the perceived effectiveness and improvement of practice from involvement in a year-long peer observation and collaborative team staff development program.

The research questions of this study will be answered using descriptive statistics from the questionnaire and descriptions from the interview protocol. Results from the questionnaire will use descriptive statistics to identify the number of participants (N), means, and standard deviations (SD). Cronbach's (1951) alpha was used to determine internal reliability of the questionnaire. Major themes from the interview descriptions will be used to supplement the questionnaire findings.

Research Questions

1. To what extent do teachers perceive the overall effectiveness of participating in a peer observation process?

2. To what extent do teachers perceive the overall quality of their professional interactions communications, feedback, or discussions [with or from or by] peers as a result of participating in the peer observation process?

Questionnaire Results

The questionnaire was sent via e-mail to 92 high school teachers. Upon closing of the survey time frame, a total of 64 teachers participated in the survey. This led to a response rate of 70%. The Likert scale responses were converted to their numerical equivalent, as previously described (ex. 1=Strongly Disagree), and entered into a spreadsheet to calculate the internal reliability using Cronbach's (1951) alpha. The calculation returned an alpha coefficient of 0.87. These results are organized in Table 9.

Table 9

Return Rate and Alpha Coefficient

Population	Responses	Return Rate	Alpha
N=92	N=64	70%	0.87

Results. The first item of the questionnaire recorded demographic information on the participants. The information gathered describes the distribution of roles that the participants have taken part in the peer observation process. The results of the first item are laid out in Table 10.

The role that is held the most is *Teacher being observed by peer* with 53 (82.8%) participants holding that role. *Teacher observing peer* is held by 45 (70.3%) of the participants.

Probationary teacher being observed by mentor is held by 24 (37.5%) of the participants.

Mentor observing probationary teacher is held by 23 (35.9%) of the participants.

Table 10

Results Item 1: Roles Held in the Peer Observation Process (Arranged in Descending Order of Count)

Role	Count	Percent
Teacher being observed by peer	53	82.8%
Teacher observing peer	45	70.3%
Probationary teacher being observed by mentor	24	37.5%
Mentor observing probationary teacher	23	35.9%
I have not taken part in the peer/mentor observation process	1	1.6%

Many teachers held multiple roles in the peer/mentor observation process. The combinations of different roles that were held by the participants are outlined in Table 11 and are labeled A through M for ease of description.

Table 11

Results Item 1: Role Combinations Participated in Peer Observation (Arranged in Descending Order of Count)

Category	Role(s)	N=64	Percent
A	Teacher being observed by peer Teacher observing peer Mentor observing probationary teacher	15	23.44%
B	Teacher being observed by peer Teacher observing peer	15	23.44%

Table 11 Continued

Category	Role(s)	N=64	Percent
C	Teacher being observed by peer Teacher observing peer Probationary teacher being observed by mentor	6	9.38%
D	Teacher being observed by peer	6	9.38%
E	Probationary teacher being observed by mentor	6	9.38%
F	Teacher being observed by peer Teacher observing peer Probationary teacher being observed by mentor Mentor observing probationary teacher	5	7.81%
G	Teacher being observed by peer Probationary teacher being observed by mentor	4	6.25%
H	Teacher observing peer Probationary teacher being observed by mentor	2	3.13%
I	Teacher observing peer Mentor observing probationary teacher	1	1.56%
J	Teacher observing peer	1	1.56%
K	Teacher being observed by peer Mentor observing probationary teacher	1	1.56%
L	Teacher being observed by peer I have not taken part in the peer/mentor observation process	1	1.56%
M	Probationary teacher being observed by mentor Mentor observing probationary teacher	1	1.56%

Every teacher who participated in the survey had taken part in the peer observation process in some capacity. Category L (n=1), states the participant held the role of teacher being observed by peer, but also states that they have not taken part in the peer/mentor observation process.

Categories A and B are the most populous combination each with a count of 15 (23.44%). Multiple roles in the peer/mentor observation process were held by the participants in categories A, B, C, F, G, H, I, K, and M, accounting for 78.13% (n=50) of the participants.

Regardless of the role of mentor teacher, probationary teacher, or peer teacher, 96.88% (n=62) of the teachers had another teacher observe them, as noted in categories A, B, C, D, E, F, G, H, K, L, and M. Also, regardless of the role of mentor teacher, probationary teacher, or peer teacher, 73.53% (n=47) of the teachers observed another teacher, as noted in categories A, B, C, F, H, I, J, K, and M.

Disregarding participation in mentor observation, teachers who held both the roles of observing a peer and being observed by a peer, as noted in categories A, B, C, and F, account for 64.07% (n=41) of the participants. Teachers who were only observed by their peers without reciprocating the process are identified in categories D, G, K, and L accounting for 18.75% (n=12) of the participants. Teachers who only observed their peers without being observed themselves are identified in categories H, I, and J amounting to 6.25% (n=4) of the participants.

Considering only participation in mentor observation, mentor teachers observing probationary teachers are identified in categories A, F, I, K, and M, and make up 35.93% (n=23) of the participants. Probationary teachers being observed by their mentors, categories C, E, F, G, H, and M, account for 37.51% (n=24) of the participants. Participants in categories F and M, 9.37% (n=6), held both the role of the mentor and the probationary teacher in the mentor observation process. Individuals in categories B, D, J, and L did not take part in the mentor observation process in either capacity, accounting for 35.93% (n=23) of the participants.

Likert-scale items. The responses to the Likert scale items, 2 through 25, on the questionnaire are converted into numerical values as described in Chapter 3 (ex. 1=Strongly Disagree) to calculate means and standard deviations of each of the items. The items are broken down by research question alignment. The results are reported in tables as they are aligned to the research questions, listing the items in descending order of means. The responses expressing agreement (*Somewhat Agree*, *Agree*, and *Strongly Agree*) and disagreement (*Somewhat Disagree*, *Disagree*, *Strongly Disagree*) with each item statement are combined for interpretation purposes. In addition, item results are initially analyzed by splitting the six-point Likert scale in half and collapsing into two "agree" and "disagree" columns (See Table 12 and 13). The full distribution of responses for each item is outlined in Appendix E.

Questionnaire items 2, 3, 5, 6, 7, 8, 9, 15, 17, 18, 20, 22, 24, and 25 are aligned to research question 1. The items are listed in Table 12 in descending order of mean. The table gives the item number, the item, number of respondents, mean, standard deviation, percentage of respondents agreeing with the item, and percentage of respondents disagreeing with the item. The items aligned to research question 1 range in mean from 5.38 (Item 3, SD=0.65) to 2.81 (Item 25, SD=1.38).

Table 12

Questionnaire Results: Items Aligned to Research Question 1 (Arranged in Descending Order by Mean)

Item	N	Mean	Standard Deviation	Agree (%)	Disagree (%)

3.	I have a clear understanding of the purpose for the pre-observation and post-observation meeting.	N=64	5.38	0.65	98.4	1.6

Table 12 Continued

	Item	N	Mean	Standard Deviation	Agree (%)	Disagree (%)
6.	The observation by a peer or mentor happens in a timely fashion after the pre-observation meeting.	N=64	5.25	0.64	100	0
18.	I always reflect on my teaching practice even prior to taking part in the peer/mentor observation process.	N=64	5.16	0.78	96.9	3.1
2.	I have a clear understanding of the rationale for peer/mentor observation.	N=64	5.14	0.69	98.4	1.6
8.	There is adequate private and distraction-free space to hold the pre- and post-observation meetings.	N=64	5.08	0.91	95.3	4.7
22.	The peer observation process is a valuable professional development opportunity.	N=64	5.02	0.77	96.9	3.1
5.	The pre-observation and post-observation meetings are of adequate length.	N=64	5.00	0.80	96.9	3.1
7.	The post-observation meeting happens in a timely fashion after the observation. (Within 72 hours)	N=64	4.98	1.03	90.6	9.4
17.	The peer observation process has allowed me to critically reflect on my teaching.	N=64	4.92	0.76	98.4	1.6

20.	I have implemented changes to my teaching practice based on critical self reflection taken place during the peer observation process.	N=64	4.86	0.73	96.9	3.1
15.	I design, develop, and evaluate instructional materials with my colleagues.	N=64	4.66	0.89	92.2	7.8

Table 12 Continued

	Item	N	Mean	Standard Deviation	Agree (%)	Disagree (%)
9.	There is opportunity to collaborate with peer/mentor observation partners.	N=64	4.61	0.77	96.9	3.1
24.	The data from the peer/mentor observation process should be shared with my supervisor(s).	N=64	2.92	1.31	35.9	64.1
25.	The data from the peer/mentor observation should be used by my supervisor(s) as a component of my summative performance evaluation.	N=64	2.81	1.38	32.8	67.2

Item 3, *I have a clear understanding of the purpose for the pre-observation and the post-observation meeting*, has the highest mean 5.38 (SD=0.65) of the entire questionnaire. In addition, item 3 has 63 (98.4%) of the participants in agreement and the highest number of participants select *Strongly Agree* (n=29, 45.3%) on the questionnaire. The most common response to this item is *Agree* (n=31, 48.4%).

Item 6, *The observation by a peer or mentor happens in a timely fashion after the pre-observation meeting*, has a mean of 5.25 (SD=0.64), and has all 64 (100%) of the participants in

agreement with the statement. The two most common responses to this item are *Agree* (n=34, 53.1%) and *Strongly Agree* (n=23, 35.9%).

Item 18, *I always reflect on my teaching practice even prior to taking part in the peer/mentor observation process*, has a mean of 5.16 (SD=0.78) and has 62 (96.9%) participants in agreement. The two top rated responses to this item are *Agree* (n=30, 46.9%) and *Strongly Agree* (n=23, 35.9%).

Item 2, *I have a clear understanding of the rationale for peer/mentor observation*, has a mean of 5.14 (SD=0.69), and has 63 (98.4%) responses in agreement. The two most common responses to this item are *Agree* (n=36, 56.3%) and *Strongly Agree* (n=19, 29.7%).

Item 8, *There is adequate private and distraction-free space to hold the pre-and post-observation meetings*, has a mean of 5.08 (SD=0.91) and has 61 (95.3%) participants in agreement. The two most common responses to this item are *Agree* (n=37, 57.8%) and *Strongly Agree* (n=19, 29.7%).

Item 22, *The peer/mentor observation process is a valuable professional development opportunity*, has a mean of 5.02 (SD=0.77) and has 62 (96.9%) of the participants in agreement. The top rated responses to this item are *Agree* (n=38, 59.4%) and *Strongly Agree* (n=15, 23.4%).

Item 5, *The pre-observation and post-observation meeting are of adequate length*, has a mean of 5.00 (SD=0.80) and 62 (96.9%) participants in agreement. The two most common responses to this item are *Agree* (n=40, 62.5%) and *Strongly Agree* (n=14, 21.9%).

Item 7, *The post-observation meeting happens in a timely fashion after the observation*, has a mean of 4.98 (SD=1.03) and has 58 (90.6%) of the participants in agreement with the

statement. The two most common responses to this item are *Agree* (n=32, 50%) and *Strongly Agree* (n=20, 31.3%).

Item 17, *The peer/mentor observation process has allowed me to critically reflect on my teaching*, has a mean of 4.92 (SD=0.76) and has 63 (98.4%) of the participants in agreement. The top rated responses to this item are *Agree* (n=35, 54.7%), *Somewhat Agree* (n=15, 23.4%), and *Strongly Agree* (n=13, 20.3%).

Item 20, *I have implemented changes to my teaching practice based on critical self-reflection taken place during the peer/mentor observation process*, has a mean of 4.86 (SD=0.73) and has 62 (96.9%) participants in agreement. The two most common responses for this item are *Agree* (n=35, 54.7%) and *Somewhat Agree* (n=16, 25%).

Item 15, *I design, develop, and evaluate instructional materials with my colleagues*, has a mean of 4.66 (SD=0.89) and has 59 (92.2%) participants in agreement. The two most common responses to this item are *Agree* (n=26, 40.6%) and *Somewhat Agree* (n=22, 34.4%).

Item 9, *There is opportunity to collaborate with peer/mentor observation partners*, has a mean of 4.61 (SD=0.77) and has 62 (96.9%) participants in agreement. In addition, item 9 has the highest number of participants who selected *Somewhat Agree* (n=27, 42.2%) on the questionnaire. The most common response to this item is *Agree* (n=28, 43.8%).

Item 24, *The data from the peer/mentor observation process should be shared with my supervisor(s)*, has the second lowest mean of the questionnaire with 2.92 (SD=1.31) and has 23 (35.9%) of the participants in agreement. The most common responses to this item are *Disagree* (n=15, 23.4%), *Somewhat Disagree* (n=15, 23.4%), *Somewhat Agree* (n=13, 20.3%), and

Strongly Disagree (n=11, 17.2%). This was the only item on the questionnaire to receive no selections for *Strongly Agree*.

Item 25, *The data from the peer/mentor observation should be used by my supervisor(s) as a component of my summative performance evaluation*, has the lowest mean of the questionnaire with 2.81 (SD=1.38) and had 21 (32.8%) participants in agreement. This item had the highest number of participants disagreeing with the statement (n=43, 67.2%), and the most participants to select *Somewhat Disagree* (n=16, 25%) and *Strongly Disagree* (n=15, 23.4%) on the questionnaire. Other common responses to this item are *Somewhat Agree* (n=13, 20.3%) and *Disagree* (n=12, 18.8%).

Questionnaire items 4, 10, 11, 12, 13, 14, 16, 19, 21, and 23 are aligned to research question 2. As a reminder, for interpretation purposes, item results are initially analyzed by splitting the six-point Likert scale in half and collapsing into two "agree" and "disagree" columns (See Table 13).The items are listed in Table 13 in descending order of mean. The table gives the item number, the item, total number of responses, mean, standard deviation, percentage of responses agreeing with the item, and percentage of respondents disagreeing with the item. The items aligned to research question 2 range in mean from 5.19 (Item 10, SD=0.69) to 4.59 (Item 23, SD=0.66).

Table 13

Questionnaire Results: Items Aligned to Research Question 2 (Arranged in Descending Order by Mean)

Item	N	Mean	Standard Deviation	Agree (%)	Disagree (%)

10.	I have quality professional interactions with my colleagues.	N=64	5.19	0.69	100	0
16.	Collaborative conversations and interactions have improved my practice.	N=64	5.19	0.69	100	0
21.	I have implemented changes in my teaching practice based on collaborative conversations with peers.	N=64	5.05	0.72	96.9	3.1
4.	Meaningful conversations take place at the pre-observation and post-observation meeting.	N=64	5.03	0.89	95.3	4.7

Table 13 Continued

	Item	N	Mean	Standard Deviation	Agree (%)	Disagree (%)
14.	I take part in continuous and specific discussion of teaching with colleagues.	N=64	5.02	0.72	100	0
11.	I am able to give/receive direct and honest feedback to/from my peers.	N=64	4.86	0.69	96.9	3.1
12.	Observing or being observed by another teacher has led to improved collaborative conversation with that teacher.	N=64	4.86	0.75	98.4	1.6
19.	I have implemented changes to my teaching practice based on discussions from the peer observation process.	N=64	4.83	0.79	95.3	4.7
13.	The peer observation process has allowed for more in-depth collaborative conversation between teachers.	N=64	4.69	0.77	98.4	1.6

23.	Collaborative conversations with my colleagues have improved with the implementation of the peer observation process.	N=64	4.59	0.66	98.4	1.6

Item 10, *I have quality professional interactions with my colleagues*, shares the highest mean of the questionnaire items aligned to research question 2 with 5.19 (SD=0.69). This item has all 64 (100%) of the participants in agreement. The two most common response to this item are *Agree* (n=32, 50%) and *Strongly Agree* (n=22, 34.4%).

Item 16, *Collaborative conversations and interactions have improved my practice*, also has a mean of 5.19 (SD=0.69) and has all 64 (100%) of the participants in agreement. The two most common responses to this item are *Agree* (n=32, 50%) and *Strongly Agree* (n=22, 34.4%).

Item 21, *I have implemented changes in my teaching practice based on collaborative conversations with peers*, has a mean of 5.05 (SD=0.72) and has 62 (96.9%) of the participants in agreement. The top rated responses to this item are *Agree* (n=37, 57.8%) and *Strongly Agree* (n=16, 25%).

Item 4, *Meaningful conversations take place at the pre-observation and post-observation meeting*, has a mean 5.03 (SD=0.89). There are 61 (95.3%) participants who are in agreement with the statement of this item. The two most common response to this item are *Agree* (n=28, 43.8%) and *Strongly Agree* (n=21, 32.8%).

Item 14, *I take part in continuous and specific discussion of teaching with colleagues*, has a mean of 5.02 (SD=0.72) and has all 64 (100%) of the participants in agreement. The top

responses to this item are *Agree* (n=31, 48.4%), *Strongly Agree* (n=17, 26.6%), and *Somewhat Agree* (n=16, 25%).

Item 11, *I am able to give/receive direct and honest feedback to/from my peers*, has a mean of 4.86 (SD=0.69) and has 62 (96.9%) in agreement. The top rated response to this item is *Agree* (n=39, 60.9%). *Somewhat Agree* (n=14, 21.9%) is the second highest response.

Item 12, *Observing or being observed by another teacher has led to improved collaborative conversation with that teacher*, has a mean of 4.86 (SD=0.75) and has 63 (98.4%) of the participants in agreement. The top rated responses to this item are *Agree* (n=30, 46.9%) and *Somewhat Agree* (n=20, 31.3%).

Item 19, *I have implemented changes to my teaching practice based on discussions from the peer/mentor observation process*, has a mean of 4.83 (SD=0.79) and has 61 (95.3%) participants in agreement. The top responses to this item are *Agree* (n=32, 50%) and *Somewhat Agree* (n=17, 26.6%).

Item 13, *The peer observation process has allowed for more in-depth collaborative conversation between teachers*, has a mean of 4.69 (SD=0.77) and has 63 (98.4%) of the participants in agreement. The top two responses for this item are *Agree* (n=28, 43.8%) and *Somewhat Agree* (n=26, 40.6%).

Item 23, *Collaborative conversations with my colleagues have improved with the implementation of the peer observation process*, has the lowest mean of the questionnaire items aligned to research question 2 with 4.59 (SD=0.66). This item has 63 (98.4%) participants in agreement. The top responses to this item are *Agree* (n=34, 53.1%) and *Somewhat Agree* (n=26, 40.6%).

Open-ended comments. Items 26-28 on the questionnaire are optional open-ended questions, where participants respond with their thoughts on the benefits and challenges of, and recommended improvements to, the peer/mentor observation process. The responses were organized by grouping similar responses together for each question. The frequencies of the most common responses are reported. Individual responses representing the categories are reported are in italic font. The results outline the number of responses to each of the items, the responses receiving multiple references for each of the items, and sample responses.

Item 26 on the questionnaire is an optional open-ended question that asks for the benefits of the peer/mentor observation process. Over half of the survey participants responded to this item. The full list of responses is shown in Appendix F. Some of the participants listed more than one benefit. The most common response referenced was the opportunity to reflect on teaching, with 10 references. Responses citing reflection as a benefit include: *The reflection process was extremely beneficial; Forced me to self-evaluate;* and *Helped me reflect on my teaching practices and make improvements based on what the mentor observed and integrating their ideas.*

Awareness and perspective of teaching practice gained from observing other teachers or being observed was referenced in 8 responses. References include: *New ideas, perspective, support; My observations have been from other content teachers and their views, as a result are different. This gives me a very different lens through which to view my classes;* and *It is good to hear/see how others teach. We are continuously trying to become more effective teachers. By doing this it gets us out of our teaching bubble and see what other teachers are doing.*

Responses citing the benefit of collaboration and discussion received 8 references. The benefit of collaborating with peers responses include: *Chance to see other classrooms and have professional conversations; Time with my coworkers! Collaboration!;* and *More specific talk with colleagues about teaching*.

The benefit of receiving feedback on teaching practice was referenced in 6 responses, including: *Allowed someone from my discipline to give input to my teaching; Opportunity for feedback from a colleague;* and *Have gained valuable feedback in a non-intrusive way-I like the conversation piece as opposed to the one-sided conversation of mentor saying what went well/what didn't go well.*

Item 27 on the questionnaire is an optional open-ended question that asks for the challenges that occurred while taking part in the peer/mentor observation process. Close to two-thirds of the survey participants responded to this item. The full list of responses is shown in Appendix F. The most cited challenge with the peer/mentor observation process was the time and scheduling aspect, with 26 references. Examples of this response include: *Time to meet; Finding the time to meet before and after; Scheduling time in an already busy day;* and *It's always beneficial, but finding the time for meaningful conversations and getting into one another's classrooms is difficult*.

Responses stating there were no difficulties accounted for the next highest total of references with 7. Responses include: *None; No challenges;* and *Not many challenges, I have had the ability to work through this for one year*.

The discomfort involved with observing or being observed by peers had 4 references, including: *Sometimes it can be hard to have that professional dialogue if your peer/mentor is a friend of yours;* and *It's always uncomfortable at first to be watched by a peer*.

Item 28 on the questionnaire is an optional open-ended question that asks for changes that could be made to make the peer/mentor observation process more effective. Slightly under half of the survey participants responded to this item. The full list of responses is shown in Appendix F. The most common response to this item was that nothing should be done to improve the effectiveness with 12 references. Responses include: *None; I like it as is!; Really like the current process;* and *We are early in the "formal" process. Just more practice at this point.*

There were 9 responses regarding scheduling for the peer/mentor observation process. Examples of this category of response include: *More dedicated time perhaps a half-day sub or early release time; Some time during the day to reflect on teaching;* and *More time for pre and post meetings*.

Clarity and training on the peer/mentor observation process had 4 responses. Responses included: *Continue training on how to engage in post observations; Clarify needed paperwork; and More training for mentors*.

Increased frequency of the practice had 2 responses. These responses were: *More required observations;* and *We should be in each other's classrooms even more often.*

Interview Results

In addition to the questionnaire data, information garnered from the interviews gives insight into the perceptions of the teachers to help answer the research questions. The interviews were audio taped then transcribed for analysis. The survey results were coded using thematic

analysis per interview question to supplement the questionnaire results in answering the research questions.

This section outlines each participant's responses to the questions. Names, identifying information, and gender pronouns are removed in description of the participants and from direct quotes from the individuals. The individuals who participated in the interview are identified by their role in the peer/mentor observation process and are renamed Participant A, B, C, D, and E. For ease of describing responses, masculine gender pronouns are used for all participants. Participant A held the role of teacher observing peer. Participant B held the role of teacher being observed by peer. Participant C held both the role of the observer and the teacher being observed. Participant D held the role of mentor observing probationary teacher. Participant E held the role of probationary teacher being observed by mentor. The questions for the interview protocol are displayed in Table 14. The qualitative results from the interviews are discussed in order of questions on the interview protocol. Direct quotes from the interviews are in italic font.

Table 14

Interview Protocol Items

	Item
1.	Describe your experience with the peer/mentor observation process.
2.	What is your perception of the overall effectiveness of peer observation on collaboration with peers?
3.	How has the peer/mentor observation process affected your teaching practice?
4.	In what ways have you benefitted from the peer/mentor observation process?
5.	What are some of the challenges you encountered during the peer/mentor observation process?

6.	In terms of collaboration with peers, in what ways have the professional interactions changed after taking part in the peer/mentor observation process?
7.	What are the motivating factors for you in the peer/mentor observation process?
8.	In what ways would you alter the peer/mentor observation process to improve upon it?

Interview question 1: Describe your experience with the peer/mentor observation process. Participant A described his experience with the peer observation process as uncomfortable saying:

> *I've been in this a while and that was always a role for an administrator. I know it's meant to be a conversation and collaborative piece, not an evaluation piece, but it was still uncomfortable for me to walk in and look at the person, and I think it would be really hard if it ever got into a deal where they asked me what I truly thought.*

Participant B described his experience with the peer observation process as a *beneficial use of time* citing that it was in the middle of the year- leaving time to make adjustments based on the practice. Participant B also described a benefit being:

> *… More of a conversation…We were able to sit there and focus it and say with the pre-interview and basically have them look for trends…So I could get some real feedback on what was happening in my classroom*.

Participant B added *it's something that is helpful for both the observer and the person being observed…they can both benefit from the experience.*

Participant C described his experience as exciting, citing the opportunity to reciprocate with a teacher who was much younger than himself. Participant C described:

I was looking forward to having that kind of someone so different from my stage of my career able to come in and observer me, and I was excited to go observe what [observee] *had to offer, so I could see if there were any new fangled tricks that I was missing out on. So the idea was very exciting. I am always eager to have people observe and give critique or comment or perspective.*

Participant D, who is the mentor to two mentees, described his experience in the mentor observation process:

I am a mentor for two mentees so I got to do the process twice. I think any time you can get teachers in each other's classrooms it's a good thing, and I think as far as a mentor I think it helps me see what actually happens in the classroom… Overall, I think it was good to just get in the classroom and see my mentees in action. I think it is working in the sense of getting mentors to see their mentees teacher. I think that part is good and I'm glad it is in place.

Participant E described his experience in the mentor observation as positive and informal. Participant E explained his experience:

When [Mentor] *came into the classroom, we had a brief pre-observation; we didn't get formally into everything, so it wasn't intimidating. It wasn't the type of meetings we had with administration, when they make you do all that critical thinking process... We didn't discuss it afterwards, we briefly discussed it maybe at our next mentor meeting, but it wasn't like a pre and post observation, so it was very informal.*

Interview question 2: What is your perception of the overall effectiveness of peer observation on collaboration with peers? When asked about the effectiveness of peer

observation on collaboration, Participant A stated that *it is hard to say if it is not effective at this point in the game,* citing struggles in collaboration with course-alike teachers. Participant A states that *if it was a colleague that we had more in common with our approach to teaching, I think it could really be beneficial.*

Participant B's perception of the peer observation process effect on collaboration is that *I don't know if it necessarily aided in more collaboration…it does not push the collaboration piece as hard as it could, although I could see it opening up some conversations.*

When asked about his perception of the overall effectiveness of the process on collaboration, Participant C stated:

> *I believe the peer observation is a key tool in reminding that although people may be outside of our department, outside of our discipline, that the commonalities of teaching about how to sustain focus, about how to engage learners from diverse perspectives. I think all of those things that are universally common about the process of teaching. It's nice that through peer observation we're able to be reminded of the things we're all striving toward… and generally trying to remind ourselves to think of ourselves as not so isolated.*

When asked about the effectiveness of mentor observation on collaboration, Participant D did not perceive any effects on collaborating in instruction in his classroom, but *as far as collaborating like discussing teaching and teaching strategies, then that was really effective.* Also, seeing the mentees teach opened up conversations allowing him to develop his practice. Participant D stated:

Seeing my mentees in action allowed us to talk about 'What was your reasoning behind this? Why would you do this?' which I think helped mentees talk about what they are doing and it also helped me understand them better.

Responding to a question about his perception of the mentor observation's affect on collaboration, Participant E stated:

I don't really think it changed that much because [Mentor] *came in and kind of watched a little bit,* [Mentor] *was also doing some other stuff so it wasn't like* [Mentor] *was ticking things off or writing observations down, it was more like* [Mentor] *was in the room.*

Interview question 3: How has the peer/mentor observation process affected your teaching practice? The teaching practice of Participant A has not been affected by the peer observation process, but Participant A remains hopeful that it will. Participant A stated:

I don't really think it has done a whole lot for me to be honest with you. This early in the game…I haven't really been observed and I've only observed one other teacher, but I really hope that it will be something down the road that will impact my teaching.

Participant B has not made many changes based on the peer observation process. However, Participant B stated that *it has given me a lot of clarity in terms of what others see when I am teaching that I don't necessarily know about.* While Participant B has not made too many changes to practice from the peer observation process itself, new *strategies have been developed through it*, from conversations held after the process.

Participant C described a *great positive effect* on teaching practice occurs when:

You are reminded that someone else's eyes will be on you, everyone steps up their game. It denies the opportunity to get in a rut or be content with a lull. I think everybody…rises

a little, stands a little taller, reaches a little higher knowing that there will be, not scrutiny, but interest and curiosity.

Participant D discussed how the mentor observation process has affected specific areas of his practice:

There were a couple things as far as, like when I observed [Mentee A], [they] *had an opener that was different than some of the things that I did, so I guess it made me think about the beginning of class a little differently. When I observed* [Mentee B], [they] *use technology so well, that helped me think about different things I can do in class.*

Participant E said that the mentor observation process has not affected his teaching practice much, but ongoing meetings with his mentor have been more beneficial. When asked if the observations have affected his practice, Participant E responded:

Not the observations, but more the mentor meetings and the talking rather than [Mentor] *coming in and watching one lesson. It's more talking about different lessons and different things that have happened rather than the actual observation. It's more the yearlong type, definitely not just for that one lesson.*

Interview question 4: In what ways have you benefitted from the peer/mentor observation process? Participant A has benefitted from the peer observation process from *looking at the forms and knowing what the other person wrote, I think it has been good for me to be reflective in how I would want that to look.* Also, Participant A stated that *the peer observation process has really made me more mindful of the student experience.*

Participant B has benefited from the awareness of his teaching practice and creating opportunity to new collaborative partnerships. Participant B stated: *I feel like it opens up the door to have conversations with those same people again for new strategies to be introduced*.

The benefits of taking part in the peer observation process for Participant C took a school-wide scope. Participant C stated:

> *I have benefitted because I am more interactive with peers and colleagues. I am mindful of the fact that we are all striving as a building in one unified direction, and it allows me to think more collaboratively about my coworkers generally… it really encourages you to find that commonality discipline to discipline.*

Participant D has benefitted from the insight attained from mentor observation:

> *…You just can't duplicate that, you can't make that up, there are conversations, but seeing them in action is really valuable. Any time you can have professional dialogue with other teachers, I think it is a good thing, so it has definitely benefitted me as well.*

Participant E benefited from being more conscious of his teaching. During the observation Participant E was *thinking about what I was doing rather than just doing it. When there is someone else in the room, I'm more conscious…of what I am doing even if there is not a formal pre and post meeting.*

Interview question 5: What are some of the challenges you encountered during the peer/mentor observation process? Participant A stated the main challenge was comfort level of observing a peer and *allowing myself to buy into it, and allowing myself and challenging myself to embrace the opportunity to go into another person's classroom and try to lead a conversation.*

The main challenge that Participant B faced with the process was finding the time to meet:

> *One of the harder parts to do is to find the time to meet before or after… I don't know if our post observation happened as timely as either of us would have wanted just because it happened when we could finally make it happen.*

Participant C discussed one of the challenges of taking part in the peer observation process as *finding the schedule, when is it ok to step away from my own class.* Another challenge that Participant C faced was:

> *To not try and artificially alter what is going to happen anyway just to put the best foot forward and presenting a lesson worthy of observation. So I think that is a little bit of a problem. To not create some sort of artificiality about it and just let your teaching be what your teaching is and so that you can make the most authentic version of the critique.*

The main challenge for the mentor observation process for Participant D was setting up the time to do the pre and post observation. The process was informally scheduled and after the observation, the pair *had a short dialogue that would really become our post-observation.*

The only challenge that Participant E faced with his mentor was that the two of them did not follow through with a post observation conference after the observation.

Interview question 6: In terms of collaboration with peers, in what ways have the professional interactions changed after taking part in the peer/mentor observation process? Participant A became more aware of the colleague that he would like to be. Participant A stated that the process has *showed me some weaknesses in myself…It's been a good awareness piece*

and has definitely highlighted an area where I need to work on in regards to being a better colleague.

Participant B stated that the professional interactions have not changed too much because *I have always been pretty willing to collaborate with my peers before this process, which made it easy to have someone step in and see and observe.* When asked if the conversations have changed based on an observer knowing how he teaches and the context of his classroom Participant B said:

> *I feel there are more strategies brought forward when you know what somebody else does in their classroom… the whole collaboration process and having the peer observation piece does affect those conversations. It just makes you more aware of what other people are doing and it opens you up when you see somebody else doing something different.*

Participant C discussed the changes to professional interactions as a result of the peer observation process:

> *The beauty of professional collaboration is I am much more willing or eager, to go check with a colleague and say 'hey do you ever work with this idea or this concept?' I think I am more willing to ask, do you ever have a way to fit this in something, because I am going to touch on this topic or content … I am much less reluctant to do so or worrisome that they would find it intrusive or a bother or what happens if it doesn't align with their philosophy or view or their style because it's part of the professional conversation to have those conversations.*

For Participant D, professional interactions have changed in regard to the depth of conversation with the mentee. Participant D states:

It deepens conversations that can take place, because instead of not having any insight and saying 'here's what I do'…actually being in there and seeing it, it does change; I know exactly what happens… It allows you to talk a little more personally and people are willing to take risks in conversation.

Participant E did not note any significant changes in professional interactions. Participant E said *I don't think they really changed, I get more input from other people; I guess I'm more collaborative than before*.

Interview question 7: What are the motivating factors for you in the peer/mentor observation process? In discussing the motivating factors for peer observation, Participant A wants to *do what is best for kids.* Participant A also cited *an opportunity for me to get better and to continue to be a bigger part of the learning community.*

The motivating factor for the peer observation process for Participant B is: *I think personally that's just how you get better… every time I go into somebody else's classroom…I see something they do and take it away and build off of it and use it in my own classroom.*

Participant C noted one of the motivating factors for taking part in the peer observation process was *the change of routine…it's something new and it's going to be learning in a different way*. Participant C also noted:

I have been doing this a while, I realize that I can only benefit from knowing more, seeing more, and trying more, you know more flexible as an educator…and provided more tools at my disposal, more tactics in the toolbox and that's motivating to know that I can stay at the top of my game if I keep seeing and learning and trying.

The motivating factors for Participant D are getting into other people's classrooms and the mandatory nature of the process. Participant D explained his interest in observation:

> *I love getting in other people's classrooms; I love everything about the observation process… those conversations just become richer the more often you get together and the more you see each other.*

Participant D continued to explain the mandatory nature of the process: *As far as the mentor part of it, I guess I was told that I have to… I think you don't make it a priority unless you have to sometimes.*

The motivating factors in the mentor observation process for Participant E are the mandatory nature of the practice and the feedback receive from the practice. Participant E states: *Well I guess because we have to, but at the same time I always like getting criticism, like good feedback, I like feedback…I guess even if we weren't mandated to do it…I would still want to do it.*

Interview question 8: In what ways would you alter the peer/mentor observation process to improve upon it? When asked about altering the process to improve upon it, Participant A replied: *I honestly think we got so much last year. I feel that I am not ready to say that this needs to be tinkered with; I feel that there will be clarity down the road on those elements.* Participant B believes that the process could be improved by having *some sort of structure in place to make sure that those pre and post observation meetings are happening.* To improve the process, Participant C stated *I think I would do more, I'd like more visits, more opportunities*. Participant D believes that the process can be improved by increasing the frequency and *having a goal of at least one thing that you want to look for*. Participant E

suggested *making sure there is a pre and post* [observation] and increasing the frequency of the practice, *maybe doing it twice, at like the beginning and end*.

Chapter 5: Summary, Conclusion, Discussion, Limitations, and Recommendations

This study is designed to examine teacher perceptions of their experience in a year-long peer observation and collaboration school improvement effort. The problem of this study is to determine the extent to which the teachers at a central Minnesota high school perceive improved quality of collaboration, feedback from peers, and reflection on teaching practice after taking part in the peer observation process.

Student achievement is affected by the quality of the teaching force. There is a need for continuous improvement of teacher quality to meet the increasing demand for improved student achievement. Professional development programs are set in place to increase the capacity of the teaching force. The expectation of continuous and job-embedded professional development sets the stage for the peer observation process as a vehicle for improved practice.

Peer observation is a formative evaluation process completed by a fellow teacher consisting of: a pre-observation conference to discuss aspects of teaching desired for improvement; an observation of a lesson by a partner teacher to gather information and/or data regarding the pre-determined areas of practice; and a post-observation meeting to discuss and reflect upon the information and/or data gathered from the observation. The process has been implemented for professional development with varying degrees of success.

An overview of school improvement discusses the effective schools research movement, the government role in education, and accountability measures. The accountability movement resulted in increased demands of curriculum standards, assessment, and evaluation of staff to ensure the quality of teaching in each classroom. Improved student achievement puts focus on the teaching practice. Traditional teacher evaluation methods have been found obsolete and have

not led to improvement of practice, nevertheless, they continue to be used. Using formative evaluation techniques can improve the practice of the teacher. Collaborative professional development methods reduce the culture of isolation, create quality professional dialogue opportunities, and improve the reflective practice of teachers.

The study used a mixed method approach to gather information from a central Minnesota high school, employing 92 teachers, via population survey and criterion based selection of interview participants. The high school involved in the study recently implemented a peer observation and collaboration program intended to improve teacher performance. The 28-item electronic questionnaire was sent via e-mail to all teachers to gather perceptions of the teachers' perception of the effectiveness of the program on improved teaching and perception of improved collaborative conversations with peers as a result of taking part in the peer observation process. The questionnaire consisted of a general demographic question regarding the combination of roles the participants have held in the peer observation process, 24 Likert scale items, and three open-ended short response items. The eight-item interview protocol was used to investigate the participant's perceptions of effectiveness of- and improvement from- involvement in the peer observation process. The questionnaire was piloted with select teachers from the middle school at the same district for clarity, validity, and readability. Validity of the survey instrument and interview protocol was established using the review of literature.

The results of the first questionnaire item show the breadth of the combinations of roles in the peer observation process held by the participants. Point values were assigned to the Likert scale items (ex. 1=Strongly Disagree) for the purpose of calculating the mean and standard deviation of each item. The point values were also used to test the reliability of the instrument by

calculating the Cronbach (1951) alpha coefficient. The instrument showed statistical reliability by having a Cronbach alpha coefficient of 0.87.

The results of the questionnaire were summarized by item and described using frequencies, means, standard deviations, and proportions. The information gathered from the interview participants was summarized and reported by interview question describing each of the participants' responses to the questions. The information garnered from the questionnaire and the interview protocol was used as evidence to support the conclusions made in answering the research questions of this study.

Conclusions

Research question 1: To what extent do teachers perceive the overall effectiveness of participating in a peer observation process? Teachers perceive the peer observation process to be an effective professional development practice. Participants indicate involvement in the peer observation process has a positive effect on their teaching practice. This claim is evidenced through the survey and interview results and supported by the research on this topic. The results indicate that 96.9% of the survey participants agreed that the peer observation process is believed to be a valuable professional development opportunity. This finding is consistent with the literature (Arnau et al., 2004; Eri, 2004). The aspects defining the effectiveness of the process can be described as the effectiveness of the structures, understanding the rationale, the effects on teaching practice, and the effectiveness of formative evaluation.

The results reflect a school wide understanding of the rationale for participation in the peer/mentor observation and the process involved. All but one of the participants (98.4%) indicated that they have a clear understanding of the rationale for peer observation, the pre-

observation, and the post-observation meeting. This finding is contrary to research completed by Murray et al. (2009) and Chamberlain et al. (2011) that found ambiguity in the role of peer observation of teaching.

The results show the structures of the peer/mentor observation program have been effectively implemented to allow for success. The process, consisting of a pre-observation, observation, and post-observation (Daniels et al., 2013; Golparion et al., 2015; Siddiqui, et al., 2007), is completed in a timely fashion, with appropriate space and time (Daniels et al., 2013) to complete the meetings. All of the participants noted that the observation follows the pre-observation in a timely fashion, while 90.6% of the participants feel that the post-observation follows the observation in a timely manner. All but two of the participants (96.9%) indicated that the pre- and post-observation meetings were of adequate length, and all but three (95.3%) indicated that there is adequate and distraction-free space to hold the meetings. Results also indicate the presence and use of opportunities for participants to collaborate with their peer/mentor observation partners outside of the process. The survey returned 96.9% of the participants being in agreement that they have the opportunity to collaborate with their peer observation partners. Interview Participants B and E also noted that collaboration beyond the process has helped improve their practice.

While 96.9% of the participants indicated the use of reflection prior to implementation, reflection taking place during the peer/mentor observation process has led to changes in practice in the same percentage of participants (96.9%). Not only does the teacher being observed benefit from the reflection, but also the observing teacher as Interview Participant D noted developing strategies based on observing his two mentees. The finding that reflection during the peer/mentor

observation has led to changes in practice is consistent with the literature (Daniels et al., 2013; Gordon, 2004; Horn et al, 2002; Siddiqui et al., 2007). This study found that the opportunity to critically reflect on teaching practice with a peer was a major benefit of taking part in the process as indicated in the responses of the open-ended item regarding the benefits of peer/mentor observation.

Consistent with Arnau et al. (2004), teachers' obtaining meaningful feedback from peers was indicated as a benefit on the questionnaire open-ended items and by interview Participants B and C. The results of the study indicate that great care be taken when using these feedback data for summative decision making as issues of trust remain a significant challenge. The results indicate a preference that information gathered from the peer/mentor observation process remains confidential to the observing teacher and the observed teacher, and not be shared with administrators or be included on a summative evaluation. This finding is contrary to recommendations to use alternative data sources and multiple raters in summative evaluations by Eller and Eller (2015) and Manatt (2000). The survey results have 35.9% of the participants feel that the peer observation results should be shared with their supervisor, and 32.8% of the participants feel that the data collected from peer observation should be used as a component of their summative performance evaluation. To contrast the responses to the items regarding administrative involvement in the process to the rest of the questionnaire, these two items received significantly different responses, as no other questionnaire item received below 90% agreement.

Research question 2: To what extent do teachers perceive the overall quality of their professional interactions, communications, feedback, or discussions [with or from or by] peers as a result of participating in the peer observation process? The results of the study indicate that the participants perceive collaborative conversations have improved in response to participating in the peer/mentor observation process. This claim is evidenced through the survey and interview results and is supported by the literature.

The results indicate a belief held by all of the survey participants is that quality collaborative discussion of teaching has improved the teaching practice of the participants. This finding is consistent with Kelly and Cherkowski (2015), Horn et al. (2002), and Goddard et al. (2007). As a product of taking part in the peer observation practice, all but one of the participants (98.4%) agreed that collaborative conversations have improved with both their peer/mentor partner and their colleagues in general. Interview Participants B, C, and D noted that the peer/mentor observation process has improved collaborative conversation. Further, the depth of conversation with colleagues has improved as a result of the peer/mentor observation process with 98.4% of the colleagues (Arnau et al., 2004; Horn et al. 2002). In addition, interview participant D noted how understanding another teachers' classroom deepens conversation and creates a willingness to take risks in dialogue. Discussions from the peer/mentor observation process have led to changes in teaching practice in 95.3% of the participating teachers, a finding consistent with research completed by Kohler et al. (1997) and Zwart et al. (2009).

Discussion

Peer observation is a valuable professional development opportunity. The process is strengthened by structures to ensure course-alike teacher teams have the opportunity to

collaborate and reflect. The results of this study showed large scale support for peer observation as a professional development tool. In addition to benefitting from collaborative opportunities, the depth and quality of conversation among teachers improved as a result of peer observation.

The individuals in this study indicated that the peer observation process was valuable, and the ensuing collaborative opportunities even more valuable. This finding suggests that understanding the context of another teacher's classroom through observation improves collaborative conversations and can improve teaching practice. The responses indicate that everyone who took part in the survey takes part in collaborative interactions with their colleagues and shares the belief that collaborative conversations have improved their practice.

A recurring theme with the responses was that the opportunity to simply observe another teacher was a quality experience in itself. The awareness that comes from seeing what another teacher, either within or outside of their content area, is doing in their classrooms is a great benefit. Also, this study found that the observed teacher gained new perspective from a second set of eyes and ears in the classroom. This study revealed that teachers are eager to receive feedback from peers. The peer observation process helps to remove isolation and force collaboration. The responses note that peer observation opened conversations and forged collaborative partnerships among teachers who may not have interacted previously.

While the process was deemed to be valuable and worthwhile, a recurring theme that was present in the interviews and the questionnaire responses was that the time required to complete the peer observation process with integrity was difficult to manage. In some cases the pre-observation or post-observation meetings were not given the proper time and effort or were altogether neglected.

Considering this study was completed during the first year of implementation of peer observation, the teachers in this study did not call for many major changes this early in the process, just the opportunity to try it as-is. The results indicate the need for the structures to ensure that the pre-observation and the post-observation meetings happen, and that they are given their due diligence. Even with time being a major limiting factor, the results indicate a desire for increased frequency of the process.

Another finding of this study is that, while the results of the survey were overwhelmingly positive in favor of peer observation, the individuals indicate that the data from the observations not be shared with administrators or be included as a component of summative evaluation. This finding suggests a lack of trust with teachers and administrative evaluation and that the process should remain teacher driven with little administrative oversight. With a desired lack of supervision over peer observation, the process requires integrity on behalf of the teachers. The results of this study indicate that the teachers are participating in the process with the fidelity necessary for successful implementation.

All things considered, this study supports peer observation as a quality professional development opportunity. There is an excitement among teachers because of the opportunity to engage in professional development in an ongoing, collaborative, and applicable manner. The motivation for participation speaks clearly that this process is a welcome opportunity to observe or be observed by other teachers, reflect, and improve teaching practice.

Limitations

The following items are limitations of this study:

1. The interview protocol was not piloted, which may affect its validity.

2. There is no data supporting student achievement gains.
3. There is no direct evidence supporting improved instruction/evaluation because this study is based on self-report data.
4. The study was completed after only the first year of implementation of the peer observation process, so it may be too soon to gather reliable data.

Recommendations for Further Research

The following items are recommendations for research topics or expansion of this study for further research:

1. Perform a quantitative analysis on the effects of the peer observation process on student achievement.
2. Collect data on the effectiveness of peer observation at the elementary and middle school levels. In addition to the isolated school levels, expand the sample size to collect data reflecting a district-wide perspective of peer observation.
3. Expand the sample size to include multiple schools' perceptions of the effectiveness of peer observation at the elementary, middle, and high school levels.
4. Collect data to examine the effects that demographics such as: gender; years of service; and content area have on the perceptions of the effectiveness of peer observation. Examine the effectiveness of peer observation at schools and school districts of differing sizes.

5. Examine the effect that professional school culture has on the perceptions of the effectiveness of peer observation.

Recommendations for Practice

The following items are recommendations for administrators implementing the peer/mentor observation process or for teachers taking part in the peer/mentor observation process:

1. Embed frequent and routine time within the school day to provide teachers opportunities to collaborate. Provide flexibility within the process to allow teachers the opportunity to: work with a variety of different teachers and work at times that allow for uninterrupted professional dialogue.
2. Provide continuous training and support in peer observation practices to sustain the successful aspects and develop the unsuccessful aspects of the program.
3. Provide clarity and communication on the implementation of the peer observation program. Allow for input from the participating teachers to gather evidence for program improvements and changes.
4. Embed formative data into the summative evaluation process. Provide clarity to teachers on the use of the formative information gathered from peer observation.
5. Develop trust between the administration and the teachers in the evaluation process. Make formative evaluation routine and frequent to develop comfort in evaluation and trust in use of formative information.

6. Continue the collection of data to monitor the effectiveness of the peer observation program and to monitor the attitudes of the teachers involved in the process. Use ongoing data collection to make adjustments and decisions on the peer observation program.

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Appendix A: Cover Letter for Questionnaire Participants

Peer Observation and Collaboration
Implied Consent

You are invited to participate in a research study on peer observation and collaboration among high school teachers. You are selected as a participant because you are a part of the teaching staff at the high school. This research project is being conducted by Jacob Klingelhutz for a graduate thesis. This study will fulfill requirements for a Master's degree in Educational Administration and Leadership at St. Cloud State University.

Background Information and Purpose:
The purpose of this study is to examine teachers' perceptions of the peer observation process as it relates to collaboration among teachers.

Procedures:
If you decide to participate, you will be asked to complete a 28-item survey regarding your perceptions of the peer observation process and your collaborative interactions with fellow staff members. The survey will take roughly 20 minutes. Results from the survey will be anonymous and no persons will be able to identify a specific individual's data results. All results will be tallied as a summary of data by item only.

As this is a population study, it is important as many people as possible complete the survey to give an accurate representation of the perceptions of the teachers.

Risks:
There are no foreseeable risks associated with participation in this study.

Benefits:
This study will provide information for administrators and teachers that may assist in improving formative performance appraisal activities and teacher collaboration opportunities in public high school settings.

Confidentiality:
The data will be collected via Google Forms, and data will be presented using a summary of results. To prevent identification of research subjects, data summaries will be presented with no more than 1-2 descriptors presented together.

Research Results:
At your request, I will provide a summary of the research results when the study is completed in December of 2016. Results of the study will be available at the Educational Administration and Leadership Department in the Education Building at St. Cloud State University. Results of this study will be made public and placed in the St. Cloud State University Repository located online at http://repository.stcloudstate.edu/. Results of this study may be presented or published at professional meetings or in professional publications.

Contact Information:
If you have questions regarding anything concerning the study, please feel free to contact me at 906-396-0507 or jklingelhutz@stcloudstate.edu or my advisor, Dr. Frances Kayona at 320-308-3170 or fakayona@stcloudstate.edu.

Voluntary Participation/Withdrawal:
Participation is voluntary. Your decision whether or not to participate will not affect current or future relations with the researcher or St. Cloud State University. If you decide to participate, you are free to withdraw at any time without penalty.

Acceptance to Participate:
Your completion of the survey indicates your consent to participation in the study and that you are at least 18 years old.

Appendix B: Informed Consent Form for Interview Protocol Participants

Peer Observation and Collaboration
Informed Consent for Interview Protocol

You are invited to participate in a research study on peer observation and collaboration among high school teachers. You are selected as a participant because you are a part of the teaching staff at the high school. This research project is being conducted by Jacob Klingelhutz for a graduate thesis. This study will fulfill requirements for a Master's degree in Educational Administration and Leadership at St. Cloud State University.

Background Information and Purpose:
The purpose of this study is to examine teachers' perceptions of the peer observation process as it relates to collaboration among teachers.

Procedures:
The interview protocol is 7 to 10 questions and will take approximately 30 minutes to one hour to complete. The interview will be recorded to maintain accurate information.

Risks:
There are no foreseeable risks associated with participation in this study.

Benefits:
This study will provide information for administrators and teachers that may assist in improving formative performance appraisal activities and teacher collaboration opportunities in public high school settings.

Confidentiality:
To maintain confidentiality, the information from the interview will be accessed by the researcher only and will be erased upon completion of the transcription. Names and identifiable information will be replaced with role of the person being interviewed. No identifying demographic information will be used in the report.

Research Results:
At your request, I will provide a summary of the research results when the study is completed in December of 2016. Results of the study will be available at the Educational Administration and Leadership Department in the Education Building at St. Cloud State University. Results of this study will be made public and placed in the St. Cloud State University Repository located online at http://repository.stcloudstate.edu/. Results of this study may be presented or published at professional meetings or in professional publications.

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Participation is voluntary. Your decision whether or not to participate will not affect current or future relations with the researcher or St. Cloud State University. If you decide to participate, you are free to withdraw at any time without penalty.

Acceptance to Participate:
Your signature of this form indicates your consent to participation in the interview protocol for this study and that you are at least 18 years old.

Subject Name (Printed)_____

Subject Signature_____

Date_____

Appendix C: Questionnaire Item Source Citations

Questionnaire Item Source Citations

	Item	Source Citation
1.	Which role(s) have you taken in peer/mentor observation?	General Demographic Question
2.	I have a clear understanding of the rationale for peer/mentor observation.	Chamberlain, D'Artrey, & Rowe (2011) Brix, Grainger, & Hill (2014)
3.	I have a clear understanding of the purpose for the pre-observation and post-observation meeting.	Eri (2014)
4.	Meaningful conversations take place at the pre-observation and post-observation meeting.	Murray, Ma, & Mazur (2009)
5.	The pre-observation and post-observation meetings are of adequate length.	Siddiqui, Jonas-Dwyer, & Carr (2007)
6.	The observation by a peer or mentor happens in a timely fashion after the pre-observation meeting.	Siddiqui, Jonas-Dwyer, & Carr (2007)
7.	The post-observation meeting happens in a timely fashion after the observation. (Within 72 hours)	Siddiqui, Jonas-Dwyer, & Carr (2007)
8.	There is adequate private and distraction-free space to hold the pre- and post-observation meetings.	Daniels, Pirayoff, & Bessant (2013)
9.	There is opportunity to collaborate with peer/mentor observation partners.	Daniels, Pirayoff, & Bessant (2013) Colbert, Brown, Choi, & Thomas (2008)
10.	I have quality professional interactions with my colleagues.	Arnau, Kahrs, & Kruskamp (2004)
11.	I am able to give/receive direct and honest feedback to/from my peers.	Arnau, Kahrs, & Kruskamp (2004)
12.	Observing or being observed by another teacher has led to improved collaborative conversation with that teacher.	Arnau, Kahrs, & Kruskamp (2004)
13.	The peer observation process has allowed for more in-depth collaborative conversation between teachers.	Horn, Dallas, & Strahan (2002)
14.	I take part in continuous and specific discussion of teaching with colleagues.	Kelly & Cherkowski (2015)
15.	I design, develop, and evaluate instructional materials with my colleagues.	Dufour (2011)

16.	Collaborative conversations and interactions have improved my practice.	Goddard, Goddard, & Tschannen-Moran (2007) Horn, Dallas, & Strahan (2002) Kelly & Cherkowski (2015)
17.	The peer observation process has allowed me to critically reflect on my teaching.	Daniels, Pirayoff, & Bessant (2013) Murray, Ma, Mazur (2008)
18.	I always reflect on my teaching practice even prior to taking part in the peer/mentor observation process.	Daniels, Pirayoff, & Bessant (2013)
19.	I have implemented changes to my teaching practice based on discussions from the peer observation process.	Kohler, Crilley, Shearer, & Good (1997) Zwart, Wubbels, Bergen, & Bolhuis (2009)
20.	I have implemented changes to my teaching practice based on critical self reflection taken place during the peer observation process.	Daniels, Pirayoff, & Bessant (2013)
21.	I have implemented changes in my teaching practice based on collaborative conversations with peers.	Zwart, Wubbels, Bergen, & Bolhuis (2009)
22.	The peer observation process is a valuable professional development opportunity.	Eri (2004) Arnau, Kahrs, & Kruskamp (2004)
23.	Collaborative conversations with my colleagues have improved with the implementation of the peer observation process.	Murray, Ma, & Mazur (2009)
24.	The data from the peer/mentor observation process should be shared with my supervisor(s).	Eller & Eller (2015)
25.	The data from the peer/mentor observation should be used by my supervisor(s) as a component of my summative performance evaluation.	Golparian, Chan, & Cassidy (2015)
26.	How have you benefitted from taking part in the peer/mentor observation process?	Daniels, Pirayoff, & Bessant (2013) Eri (2014)
27.	What Challenges did you encounter during the peer/mentor observation process?	Brix, Grainger, & Hill (2014) Horn, Dallas, & Strahan (2002) Murray, Ma, & Mazur (2009)
28.	What improvements would you like to see made to enhance the quality of the peer/mentor observation process?	Cosh (1999)

Appendix D: Interview Protocol Source Citations

Interview Protocol Item Source Citations

	Item	Source Citation
1.	Describe your experience with the peer/mentor observation process.	Eri (2014)
2.	What is your perception of the overall effectiveness of peer observation on collaboration with peers?	Horn, Dallas, & Strahan (2002)
3.	How has the peer/mentor observation process affected your teaching practice?	Daniels, Pirayoff, & Bessant (2013)
4.	In what ways have you benefitted from the peer/mentor observation process?	Daniels, Pirayoff, & Bessant (2013)
5.	What are some of the challenges you encountered during the peer/mentor observation process?	Brix, Grainger, & Hill (2014)
6.	In terms of collaboration with peers, in what ways have the professional interactions changed after taking part in the peer/mentor observation process?	Horn, Dallas, & Strahan (2002)
7.	What are the motivating factors for you in the peer/mentor observation process?	Arnau, Khars, & Kruskamp (2004)
8.	In what ways would you alter the peer/mentor observation process to improve upon it?	Cosh (1999)

Appendix E: Questionnaire Results Distribution

Likert-Scale Questionnaire Items Response Distribution

Item	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
2. I have a clear understanding of the rationale for peer/mentor observation.	0 0%	0 0%	1 1.6%	8 12.5%	36 56.3%	19 29.7%
3. I have a clear understanding of the purpose for the pre-observation and post-observation meeting.	0 0%	0 0%	1 1.6%	3 4.7%	31 48.4%	29 45.3%
4. Meaningful conversations take place at the pre-observation and post-observation meeting.	0 0%	1 1.6%	2 3.1%	12 18.8%	28 43.8%	21 32.8%
5. The pre-observation and post-observation meetings are of adequate length.	0 0%	2 3.1%	0 0%	8 12.5%	40 62.5%	14 21.9%
6. The observation by a peer or mentor happens in a timely fashion after the pre-observation meeting.	0 0%	0 0%	0 0%	7 10.9%	34 53.1%	23 35.9%
7. The post-observation meeting happens in a timely fashion after the observation. (Within 72 hours)	1 1.6%	1 1.6%	4 6.3%	6 9.4%	32 50%	20 31.3%
8. There is adequate private and distraction-free space to hold the pre- and post-observation meetings.	1 1.6%	1 1.6%	1 1.6%	5 7.8%	37 57.8%	19 29.7%
9. There is opportunity to collaborate with peer/mentor observation partners.	0 0%	1 1.6%	1 1.6%	27 42.2%	28 43.8%	7 10.9%
10. I have quality professional interactions with my colleagues.	0 0%	0 0%	0 0%	10 15.6%	32 50%	22 34.4%
11. I am able to give/receive direct and honest feedback to/from my peers.	0 0%	0 0%	2 3.1%	14 21.9%	39 60.9%	9 14.1%
12. Observing or being observed by another teacher has led to improved collaborative conversation with that teacher.	0 0%	0 0%	1 1.6%	20 31.3%	30 46.9%	13 20.3%

13. The peer observation process has allowed for more in-depth collaborative conversation between teachers.	0 0%	1 1.6%	0 0%	26 40.6%	28 43.8%	9 14.1%
14. I take part in continuous and specific discussion of teaching with colleagues.	0 0%	0 0%	0 0%	16 25%	31 48.4%	17 26.6%
15. I design, develop, and evaluate instructional materials with my colleagues.	0 0%	1 1.6%	4 6.3%	22 34.4%	26 40.6%	11 17.2%
16. Collaborative conversations and interactions have improved my practice.	0 0%	0 0%	0 0%	10 15.6%	32 50%	22 34.4%
17. The peer observation process has allowed me to critically reflect on my teaching.	0 0%	1 1.6%	0 0%	15 23.4%	35 54.7%	13 20.3%
18. I always reflect on my teaching practice even prior to taking part in the peer/mentor observation process.	0 0%	0 0%	2 3.1%	9 14.1%	30 46.9%	23 35.9%
19. I have implemented changes to my teaching practice based on discussions from the peer observation process.	0 0%	0 0%	3 4.7%	17 26.6%	32 50%	12 18.8%
20. I have implemented changes to my teaching practice based on critical self reflection taken place during the peer observation process.	0 0%	0 0%	2 3.1%	16 25%	35 54.7%	11 17.2%
21. I have implemented changes in my teaching practice based on collaborative conversations with peers.	0 0%	0 0%	2 3.1%	9 14.1%	37 57.8%	16 25%
22. The peer observation process is a valuable professional development opportunity.	0 0%	1 1.6%	1 1.6%	9 14.1%	38 59.4%	15 23.4%
23. Collaborative conversations with my colleagues have improved with the implementation of the peer observation process.	0 0%	1 1.6%	0 0%	26 40.6%	34 53.1%	3 4.7%

24. The data from the peer/mentor observation process should be shared with my supervisor(s).	11 17.2%	15 23.4%	15 23.4%	14 21.9%	9 14.1%	0 0%
25. The data from the peer/mentor observation should be used by my supervisor(s) as a component of my summative performance evaluation.	15 23.4%	12 18.8%	16 25%	13 20.3%	7 10.9%	1 1.6%

Appendix F: Questionnaire Item 26-28 Responses

Item 26: How have you benefitted from taking part in the peer/mentor observation process?

- It helps me to clarify my own thinking about my instruction. It helps me to think about the "why" of my instructional decision making.
- It is nice to have a colleague observe you instead of an administrator. There is less pressure and it can be great if they are in your department so they know exactly what you are teaching.
- It has been an opportunity to collaborate and self-reflect
- It's always good to have a second pair of eyes/ears in the classroom. New perspectives do create opportunities for growth. Beyond that, I've been able to develop some very positive working relationships with colleagues, especially when we have the ability to choose peers to share observation time with.
- I have enjoyed getting to see other curriculum areas over the years. Stepping outside my arena and see how others function and operate and even implement with interesting and intriguing.
- Yes
- Forced me to self evaluate
- Better strategies, reflective practice
- Ideas, changes, improvements, discussion, sharing, growth in student learning.
- Allowed someone from my discipline to give input to my teaching.
- It has helped me think about what I am teaching and how I can improve it. It allows me to think about the way I think about teaching. I have always been a reflective person but now I have a better process for reflecting on my teaching.
- Got a better idea of what my class looks like.
- Multiple times each year.
- It has allowed me to critically think through how and what I am teaching.
- More specific talk with colleagues about teaching.
- Allowed me to think like a beginner when I am giving demonstrations. This is a good thing. Make no assumptions about prior knowledge.
- reflection
- Someone with similar content background is able to evaluate my teaching
- It is good to hear/see how others teach. We are continuously trying to become more effective teachers. By doing this it gets us out of our teaching bubble and see what other teachers are doing.
- Seen another teacher's teaching methods
- New ideas, perspective, support
- Ideas breed ideas. Collaboration is key to success. Sharing of resources helps everyone be more efficient
- As a small group of teachers we have developed a list of concerns and some ways that we feel we are able to help to re-mediate the area of concern.
- It makes me look at my teaching styles/strategies and where I need to modify and adjust.
- I a more aware of my own strengths and weaknesses.
- Guidelines and workshops have been helpful - questioning, listening, rephrasing and gathering quantitative data has improved.
- As a mentee, the conversations helped me see that veteran teachers deal with some of the same challenges I was facing as a young teacher. They also helped me workshop solutions to some of those challenges. Any time I can have a conversation about my teaching, I feel like I notice something new and come away with a productive idea or two. As a mentor, I learned a lot from my mentee's approach and also was able to have valuable conversations. The peer observations provide a chance to

see how someone else is doing things, which always helps stir up productive, reflective thoughts on my own practice.
- Time with my coworkers! Collaboration!
- Have gained valuable feedback in a non-intrusive way - I like the conversation piece as opposed to the one- sided conversation of mentor saying what went well/what didn't go well.
- Great to see the script of what happened during observation and then be able to make changes that are necessary.
- My observations have been from other content teachers and their views as a result are different. This gives me a very different lense through which to view my classes.
- The reflection process was extremely beneficial.
- Helped me reflect on my teaching practices and make improvements based on what the mentor observed and integrating their ideas.
- Opportunity for feedback from a colleague
- More benefit from PLC than the observation
- I saw techniques used in another class, another discipline even, which I believed would also greatly benefit my students. I have begun the systemic changes needed to make it so. I also received at least one response from my peer observer that prompted another overall change in my view and goal setting for one of my courses which I believe will best benefit my students.
- Once as a probationary staff
- getting to know people who work with me better
- Chance to see other classrooms and have professional conversation

Item 27: What challenges did you encounter during the peer/mentor observation process?
- None
- None
- No challenges.
- Sometimes it can be hard to have that professional dialogue if your peer/mentor is a friend of yours.
- scheduling
- Finding time and opportunities for continued collaboration - and finding space and planning time to implement changes. For the process to really work well, we need time to establish relationships and trust with those we observe, and those who are observing us.
- It can be difficult to find times if you are both involved in activities or busy schedules.
- none
- Time
- Time, honest feedback, on task conversations.
- Timing of observation, lack of guidance on what my mentor and I were actually supposed to discuss.
- Time and a meeting place
- Finding a time that worked for both parties was difficult. We all have a lot going on so it wasn't easy to find time for timely pre and post observations
- Not any.
- Not common preps.
- Not many challenges, I have had the ability to work through this for one year.
- It's always uncomfortable at first to be watched by a peer.
- Finding time.
- peers
- timeliness; we are both very busy so the observation did not occur until late in the year
- Finding time to meet.

- Sitting there and not participating, would like to put my thoughts in
- lack of time
- I believe it is important that teachers have various styles of teaching...that we have a variety of styles represented in the building. I don't want us to become cookie cutter teachers/staff. That worries me. So, I love the process but want BHS to remain a unique place with a variety of teachers who have a multitude of teaching strengths.
- Meeting times were difficult.
- Scheduling time in an already busy day.
- Its always a challenge to change.
- Finding time to meet for pre- and post-observation conversations is difficult.
- Challenging not to be a "coach".
- It's always beneficial, but finding the time for meaningful conversations and getting into one another's classrooms is difficult.
- Amount of time needed to ore meet, observe and post meet.
- It is always intimidating being observed and criticized but the cognitive coaching piece kept it more conversation and was very helpful.
- Scheduling time to do post eval
- Finding a time that worked for the mentor to observe me.
- Taking those conversations to the PLC.
- None really
- Time to meet
- Getting our schedules to align can be problematic.
- Sometimes difficult to get the times set up for observation and meetings.
- scheduling post-op meeting
- scheduling time is always a challenge
- Finding the time meet before and after

Item 28: What improvements would you like to see made to enhance the quality of the peer/mentor observation process?

- Not sure.
- Not sure.
- We should be in each other's classrooms even more often.
- none
- Time for follow-up and implementation (repeated, deep implementation) of new strategies.
- The way PPD was completed with [coach] was very beneficial. The questioning is more reflective.
- Sometime during the school day to reflect on teaching.
- clarify needed paperwork
- Coaching model
- More training for mentors. Allow probationary teachers the same opportunity to have peers observe them--not only administrators for three years.
- Continue training on how to engage in post observations
- OK as is.
- Align with common preps.
- N/A
- Clear and simple objectives, not too many
- more time for pre and post meetings

- Supervisors setting out specific times to meet.
- Don't know
- I loved when we had the opportunity to observe other teachers as part of our Thursday prep sessions. I wish we were still doing that.
- common interest groups.
- No changes at this time.
- It is just fine the way it is for a few years at least until everyone gets used to the process. thanks
- We are early in the "formal" process. Just more practice at this point.
- Really like the current process.
- Immediate feedback...schedule the next block after observation to review, rather than waiting. I have had to wait as long as four weeks to get feedback.
- More required observations.
- None
- More dedicated time perhaps a half day sub or early release time
- I would like to know that substitutes are available- should that be necessary- if the schedules of mentor/mentees, or peer observers, not align.
- I like it as is!
- Using Thursday in-service time again for pre and post meetings

Appendix G: Interview Protocol Transcripts

Participant A: Observer Interview

Describe your experience with the peer observation process.

I am our coach, the observer, and I've observed one of our colleagues on our team, and it's different. It wasn't that comfortable for me, I'll be honest; it was a lot to jump into in regards to those conversations, and walking in and observing another and trying to lead a conversation with them. I've been in this a while and that was always a role for an administrator. I know it's meant to be a conversation and collaborative piece, not an evaluation piece, but it was still uncomfortable for me to walk in and look at that person, and I think it would be really hard if it ever got into a deal where they asked me what I truly thought. So for me, it's something that I tread lightly with. (Do you think it's working? Is it achieving what you think it should be doing?) *It's too early to tell. I mean it's one year, and maybe there will be an increase in comfort level, but right now it's something I tread very lightly with, and I'm not totally secure going into one of my colleagues rooms and, even those it is supposed to be a collaborative deal. It's a role that I feel like I've been given and it's something that is going to take a while to grow in my comfort.*

What is your perception of the overall effectiveness of peer observation on collaboration with peers?

I would say that the person that I observed, we're fine, I like the colleague as a person, but I don't really feel that, we collaborate, we go over test results, and we talk about what do we do to prepare kids, especially if I or the other person's kids weren't mastering the summative piece, and discussing a way that we could approach it, we don't really share a whole lot and I think that we have totally different styles. If it was a colleague that we had more in common in our approach to teaching, I think it could really be beneficial. And hopefully down the road, again, this is year one. It is hard to say if it is not effective at this point in the game.

How has the peer observation process affected your teaching practice?

I don't really think it has done a whole lot for me, to be honest with you, this early in the game. I think I have one colleague that I have similar philosophies with that I might end up observing or this person might end up observing me, and hopefully we'll be able to down the road as this matures, it will be an opportunity to have a real progressive professional conversation about how to evolve our teaching methods in ways that are going to be good for kids. I haven't really been observed and I've only observed one other teacher, but I really hope that it will be something down the road that will impact my teaching. (Did you get any new strategies from that observation?) *No.* (Did you adjust any previous strategies that you used?) *No.*

In what ways have you benefited from the peer observation process?

For me it has, and looking at the observation forms and knowing what the other person wrote, I think it has been good for me to be reflective in, how would I want that to look. It has been more a deal that, this year I will get a peer observation, I think that it will healthy for me have somebody come in and for me to be maybe mentored by somebody who sees things a little differently. I am looking forward to being on the other side. (Have you noticed any changes in student outcomes in your class?) *It's too early.* (After reflecting?) *Yes, that's a good point; the peer observation process has really made me more mindful of the student experience. Looking at what you are looking to accomplish, and I think the peer observation process and the dynamics of the program is really student centered. So, I think it's really challenged me to take a different paradigm shift to take a look at teaching and what we want students to accomplish.*

What are some of the challenges you encountered during the peer observation process?

Allowing myself to buy into it. And allowing myself and challenging myself to embrace that opportunity to go into another person's room and try to lead a conversation. For people in my generation, when we started teaching you got your text book and tests and you shut the door. That has been the paradigm, and that whole comfort level of sharing. Again after one year, I think this interview would be a lot more beneficial if we had three years. (So how did you manage the challenges?) *I talked to our ppd coach, I was really candid with his saying this is a role that I am not really comfortable with, to walk into one of my peers and, especially the peer I did observe, and just try to make sense of how I could do this process justice, for me and that person.* (Would you change your approach next time?) *I think the approach is going to be different based on what teacher you are working with. How far they're interested in taking it. I really hope now that I am on the other side that I am going to get someone who is truly interested in working with me and hopefully it will be something that I can grow from and that person can grow from as well.*

In terms of collaboration with peers, in what ways have the professional interactions changed after the taking part in the peer observation process?

I think that I'm a lot more aware of teachers that I like to work with and don't like to work with. I'd really learned as far as colleagues, and I've also learned that, it has made me aware of if I am going to be a good colleague, what do I need to do differently? So, where are my weaknesses? I have learned that if somebody is disinterested in going through the motions it is not going to be, they think of it as a hoop, it is not really going to be valuable working with that person. I think if, I really learned that with me a big turnoff in collaboration is those teachers that will tell you a lot, but you will never tell them anything. I think also, this whole process has really showed me some weaknesses in myself, as I think I can "put my garage door down" a lot, if I am challenged I have a tendency to prove that I am right and that what I am doing is the right way. It's been a good awareness piece and it has definitely highlighted an area where I need to work on in regards to being a better colleague.

What are the motivating factors for you in the peer/mentor observation process?

I just want to do what's best for kids. [Personal information removed] *I really think that, they are, and just in the community people are going to find out who, you have a legacy in a town like this, you are not anonymous it is a big enough school that you have opportunities. To me it's an opportunity for me to continue to grow, become a better teacher. And the community people say "that person is a good teacher, that person tries" for my kids to say "you know your dad's a professional". To me, that motivates me, you know this observation process is to not get stagnant, it will force, hopefully it is something that will challenge me to continue to evolve and be fresh and I'm not interested in my role as the leader of our PLC to be the hero. It's just kind of an opportunity for me to get better and to continue to be a bigger part of the learning community.*

In what ways would you alter the peer/mentor observation process to improve upon it?

I honestly, think we got so much last year, we got QComp, the peer observation process, the collaborative inquiry training, I am not ready to say that yet, where I think last year I was just trying to, we had the observation model we just had so many, like last year was just trying to figure out that I was giving my team the information we needed to get what we needed to do done, with all those deals. I feel like I am not ready to say that "this needs to be tinkered with" I feel that there will be clarity down the road on those elements.

Participant B: Observee Interview

Describe your experiences with the peer observation process

I got observed in the middle of last year by my peer. I thought it was a beneficial use of time to have [them] *come in and observe it was in the middle of the year which was nice because we could still go back and make kind of changes based on what they said, so you could really use it to affect your teaching. I thought it was beneficial, you could sit there and just have, more of a conversation, than just a "oh you're doing good or you're doing bad" just in terms of what they see in your classroom. We were able to sit there and focus it and say with the pre-interview and basically have them look for trends, and they could see what they wanted to see. So that I could get some real feedback on what was happening in my classroom.* (Is the peer observation process working?) *For me I would say so, yeah. I guess I would say across the board it's working pretty well too. I think that as a school we do a good job of having other teachers come in your room and observe, I feel like it's something that is helpful for both the observee, or the person doing the observing and the person being observed. I feel like they both can benefit from the experience.*

What is your overall perception of peer observation on collaboration with peers?

I would say the whole peer observation process, in terms of just being observed by a peer, I don't know if it necessarily aided in more collaboration, I feel like if I were to be observed by somebody else who teaches the same class as me, I think it could definitely be a stepping stone to further pursue that. But just in terms of having somebody that is maybe your mentor coming in to observe you doesn't necessarily push that collaboration piece as hard as it could, although I could see it opening up some conversations, if those conversations haven't been had initially.

How has the peer observation process affected your teaching practice?

I guess I don't know if I would say that I have made too many changes from it at this point. It's just given me a lot of clarity in terms of what others see when I am teaching that I don't necessarily know about. (Have you developed any new strategies from the process?) *Just with* [PEER] *observing me, we have had a lot of conversations, it's kind of hard to place the time on those, whether it was before or after the observation. But just in terms of strategies, in having* [them] *see my classroom a couple of times now,* [they] *kind of know what I do, and I know what* [they] *do it is kind of a nice bridge to sit there and share different things that you do. So yeah I would say new strategies have been developed through it.* (Have you adjusted any of your previous strategies that you were working on through conversation?) *I would say so. Just in terms of questioning was a good example too. Just different avenues to go about questioning the room and making sure everybody is engaged and developing that. I would say, yeah, that has been kind of been adjusted based on the conversations we've had.*

In what ways have you benefited from the peer observation process?

I think I just have more awareness of kind of my teaching, what I do. I feel like it opens up the door to have conversations with those same people again for new strategies to be introduced and different things along those lines. (Have you noticed any changes in student outcomes specifically because of this process?) *Not necessarily, nothing particularly stands out.*

What are some of the challenges you encountered during the peer observation process?

Honestly I feel like I didn't have too many difficulties that arise. I feel like just knowing that you are having another teacher in your classroom, you are always wanting to sit there and put on your best effort, so you feel like you prepare a little bit more, not that that is necessarily a challenge or a bad thing, but overall I think it goes pretty smooth. One of the harder parts to do

is to find the time to meet before and after, I feel like that is something that is a little bit difficult, especially when people have busy schedules and kids and how do you make that all work nice. (pre and post observations?) *Yeah, Pre- and Post.* (How did you manage these challenges?) *Just the conversation of when works for you and being flexible with it. I don't know if our post observation happened as timely as either of us would have wanted just because it happened when we could finally make it happen, not initially right after which I think would have been more beneficial.* (Did it happen within 72 hours?) *No, I don't believe so*. (How would you change your approach next time?) *I think just trying to be more conscious of doing the pre and the post, and just scheduling those and just picking the lesson in between, and just making sure those fall in the same week or in the same couple of days I think would be a change to make next time.*

In terms of collaboration with peers, in what ways have the professional interactions with peers after taking part in the peer observation process?

I don't know if I would say they have changed too much, I have always been pretty willing to collaborate with my peers before this process, which I think made it easy to have somebody step in and kind of see and observe. (Have the conversations changed knowing that somebody has been in your room, knowing that somebody knows how you teach?) *I would say so. I feel like there are more strategies brought forward when you know what somebody else does in their classroom, because just how I've even seen your classroom, I can go in and say 'here's what I'm doing, I know what you do, try this' and just provide you with different things that way, so I think just in general. The whole collaboration process and having the peer observation piece does affect those conversations. It just makes you more aware of what other people are doing and it opens you up when you see somebody else doing something different to say 'hey what are you doing there? Is it working? How do you do it? Everything along those lines.*

What are the motivating factors for you in the peer observation process?

I think realistically, I think personally that's just how you get better. You go to workshops all the time, I don't know if you get as much out of them as you would like to. But I feel that every time I go into somebody else's classroom, whether it's content alike or not I feel like I see something they do and take it away and build off of it and use it in my own classroom.

In what ways would you alter the peer observation process to improve upon it?

Just having some sort of structure in place to make sure that those pre and post observation meetings are happening. I think one of the setup pieces we do is just having the strong relationships among the teachers to begin with which I think is crucial for success in it. So in terms of what we do here at [High School], *I don't think that piece needs to change, but if you were at a different school, that is something that you would definitely want to establish pretty strongly on the front end.*

Participant C: Observer and Observee Interview

Describe your experience with the peer observation process.

I was excited, the peer I selected was someone who is quite a bit younger than I am and closer to that beginning part, full of enthusiasm, still fresh with techniques and lots of ideas from the educational process, and I was looking forward to having that kind of someone so different from my stage of my career able to come in and observe me, and I was excited to go and observe what [they] *had to offer, so I could see if there were any new fangled tricks that I was missing out on. So, the idea was very exciting. I am always eager to have people observe and give critique or comment for perspective.* (Is it working from your perspective?) *When I do speak to colleagues I do find them speaking more favorably than anything else. Most enjoy their colleagues; most were able to select within reason someone they believed would offer perspective that would be helpful. It wasn't thrust upon them in a way that felt artificial, from perhaps such a different department or such a different style that it was wondering how the benefit would work. So I think because there's ability to choose within a structure that it was more welcomed and peoples positive talk. Because of the training we received about how we're supposed to give feedback to one another or restate what's going on, I think no one is just taking it too lightly, but no one's straying so far off track with heavy criticism or lots of negativity that I don't think the process itself is off putting to anyone.* (Did you pick somebody inside of your department?) *I did not; I picked somebody outside of my discipline yeah.*

What is your perception of the overall effectiveness of peer observation on collaboration with peers?

Absolutely, I believe the peer observation is a key tool in reminding that although people may be outside of our department, outside of our discipline that the commonalities of teaching about how to sustain focus, about how to engage learners from diverse perspectives, I think that all of those things that are universally common about the process of teaching, it's nice that through peer observation we're able to be reminded of the things we're all striving toward, I think that really helps the collaboration saying "oh you are also encouraging strong writing, even though it's going to be in a history report. You are also encouraging inquiry through using academic resources instead of Google or Wikipedia, finding those things that are true to good education. And generally trying to remind ourselves to think of ourselves as not so isolated or homogeneous. (So it's collaboration not even within your department, but also…) *Yeah across building, that's what my opinion is. The thing I hear people talking about most excitedly about. "I didn't know they did this over in … fill in the part of the building.*

How has the peer observation process affected your teaching practice?

I think that just like anything else, when you are reminded that someone's eyes will be on you, everyone steps up their game. It denies the opportunity to get in a rut or be content with a lull or I think everybody, ya know, rises a little, stands a little taller, reaches a little higher knowing that there will be, not scrutiny, but interest, curiosity, it's like you know, you're getting scouted so you play a little harder. I think that's a great positive effect. (One of your equals will be there watching you) *Yeah you want to make sure that's it's worthy of being observed.* (So with that have you developed any new strategies from the peer observation process?) *I was able to observe something about breaking up time. We have the block schedule so it's this longer period of time, and I tend to be a person who loves to speak, I am a stand and deliver kind of person in my most basic form, and yet that, so doesn't mean I remember to provide breaks or to shift things as frequently as another teacher who remembers that anything that sustains for too long allows for students attention to wonder. So yeah, I was able to see a technique, and see an approach or a reasoning, that reminded me that I should integrate that more.* (Have you adjusted any of the

previous strategies that you have used?) *Yeah, when I am lesson planning now, I do remember to think of things in certain blocks of time and they are smaller and shorter than they used to be.* (So you used this and adjusted what you had) *Yeah.*

In what ways have you benefited from the peer observation process?

I have benefitted because I am more interactive with peers and colleagues. I am mindful of the fact that we are all striving as a building in one unified direction. And it allows me to think more collaboratively about my coworkers generally than some of the talk really encourages you to find that commonality discipline to discipline, and that broadens because I am a person who has taught in a different building and a different environment in a team teaching process and we are constantly looking for the ways that my content influenced your content. Your content connects to my content. And between history and science and social studies and English, those things that there is more connectivity points than we are usually mindful of as we lesson plan and I think it reminds me that "Oh I wonder if in this same grade level if I'm reading a story that happens on a certain continent or in a certain culture I might think when is the information provided in their other academic world in that content or in that culture, and what have they had as prior learning and what could I build from, scaffold, as long as I can say, "remember when you learned" or " later you will learn…" it gives them a more integrated experience scholastically, and that can't do anything but benefit them is to show more and more connections. (Have you noticed any change in student outcomes?) *I think because I am mindful of saying "Over here you will learn in" or "another class later" or " if you take such and such with Mrs. Social Studies" I think because I do that they remember to look and say 'I'm not learning four different things in isolation, I'm learning things that do have, even if the puzzle piece won't be until next year, or if I choose that elective' it wouldn't just lay there in isolation it would be like ' oh that can build to the next thing'*

What are some of the challenges you encountered during the peer observation process?

Challenges, just a little bit about finding the schedule, when is it ok to step away from my own class, sometimes we all feel that every day is vital. I think one of the problems with peer observation is, in my grad class I learned of something called 'climbing the ladder' it's the fear and anticipation, it's thinking you know an outcome or conclusion before the event arrives and trying to let yourself, if you believe you know the outcome you may only be accelerating in that direction, so just saying 'oh I know this person wouldn't want to see x' or 'maybe I shouldn't show y on the day I'm being observed instead", of just letting it be its innate lesson whatever is meant to be that day or whatever is occurring. To not try and artificially alter what is going to happen anyway just to put the best foot forward and presenting a lesson worthy of observation. So I think that is a little bit of a problem. To not create some sort of artificiality about it and just let your teaching be what your teaching is and so that you can make the most authentic version of the critique. Does that make sense? That is a lot of words to say something that I thought would be simpler than that. (So how did you manage these challenges?) *Hopefully just by speaking a little bit more with the person who is coming in and doing the observation saying 'what do you want to see, ' and speaking to each other if we do that, then is it really showing what we are giving the students on a daily basis. Kind of, I guess talking out with that person in advance, what would be right or wrong about that. And trying to just not let it roll that direction.* (Would you change your approach next time?) *I think I would be less worried or anxious about it. I think I will having once gone this route, I've got the mental map now for what it looks like, so think that that was good. I would be not overly concerned with it again.*

In terms of collaboration with peers, in what ways have the professional interactions changed after the taking part in the peer observation process?

I think, also the beauty of professional collaboration is I am much more willing, or eager to go check with a colleague and say 'hey do you ever work with this idea or this concept?' I think I'm more willing to ask, do you ever have a way to fit in something, because I am going to touch on this topic or this content, would you ever consider addressing it also? Or do you have a way to include some of that language or would you ever have students cite sources in this way,' finding those touch points and the collaboration part of it is I am much less reluctant to do so or worrisome that they would find it intrusive or a bother or what happens if it doesn't align with their philosophy or view or their style because it's part of the professional conversation to have those conversations anyway to say, 'oh, it doesn't correlate to with what you're practicing, oh interesting, what are you practicing and why is that best for your class? Without finding that to be intrusive, but instead finding it to be appropriate professional collegial discussion.

What are the motivating factors for you in the peer observation process?

I like the change of routine; it is nice to shake up your week. Or that know in a certain part of the day you get to go do something else, that is exciting, educators are born learners and we never want to stop learning usually to some extent, so that you get to go to this other thing, it's like kids anticipating a field trip, they know it's still academic or scholastic, but it's something new and it's going to be learning in a different way, so I think that motivating. It's motivation to because luckily, and I think part of it is I've reached that stage in my career, [personal information removed], *I've been doing this a while, I realize that I can only benefit from knowing more, seeing more and trying more, you know more flexible as an educator , and I've become, and provided more tools at my disposal, more tactics in the toolbox and that's motivating to know that I can stay at the top of my game if I keep seeing and learning and trying, so that's motivation.*

In what ways would you alter the peer observation process to improve upon it?

I'm not really good at large structural systematic overviews, I don't know that that is always my, so when I'm asked if you were to tweak the system, where would you start? What would you alter I don't. (Is there something you would like to do with it or is it fine the way it is?) *I think I would do more; I'd like more visits, more opportunities. I know there is a cost component, I know there is a time component but because it is so rejuvenating, because it is so impactful on creating different bonds across the peer/colleague relationships in the building, I would do more, I don't know that I'd want to impose on my colleagues that there be a requisite number of more involved, but maybe the opportunity to do more either by choice or at time or leisure, teacher to teacher, I don't know if that is too ambiguous, but I would do more, that is the only thing that I would change.*

Participant-D: Mentor Interview

Describe your experience with the mentor observation process.

I am a mentor for two mentees so I got to do the process twice. I think any time you can get teachers in each other's classrooms it's a good thing, and I think as far as a mentor I think it helps me just see what actually happens in the classroom because you can meet before and after school all you want, but actually seeing the classroom, I think is a good thing. I think if I was going to change something I would do it more than just once, and time is always an issue. Overall I think it was good to just get in the classroom and see my mentees in action. (Do you think it is working?) *I mean I think it's working in the sense of getting mentors to see their mentees teach. I think that part is good and I'm glad that that is in place. I do think that the pre and the post observation meetings, I think they need to be a little more structured. It seems to always be a time issue of "gosh I got to get this in and there is just not enough hours in the day" I think working, it works in the sense of getting mentors the opportunity to see their mentees which maybe provides for meaningful discussion later on.*

What is your perception of the overall effectiveness of peer observation on collaboration with peers?

I think, honestly the collaboration piece, it wasn't necessarily there this year at least in my experience, as far as the goal it wasn't like collaborating necessarily in instruction, but as far as collaborating like discussing teaching and teaching strategies, then that was really effective. I think that, like I said seeing my mentees in action, then in allowed us to talk about "hey what was your reasoning behind this? Why would you do this?" Which I think helped mentees talk about what they are doing and it also helped me understand them better.

How has the mentor observation process affected your teaching practice?

I think, there were a couple things as far as, like when I observed [Mentor A], [they] *had a opener that was different than some things that I did, So I guess it made me think about the beginning of class a little differently. When I observed* [Mentor B], [they] *uses technology so well, I think, that helped me think about different things I can do in class specifically with* [B] *it was Plickers and how* [they] *was using those and I brought those into my classroom again.* (So did you develop any new strategies from that?) *So I did bring the Plickers back, it was something that I had experimented with a couple years ago, so I thought "let's see, how can I bring those back" so I did bring Plickers back into my classroom.* (Was there any other previous strategies that you adjusted based on what you saw?) *Not based on those two mentee observations.*

In what ways have you benefited from the mentor observation process?

I think it benefitted me as a mentor because like I said that insight, you just can't duplicate that, you can't make that up, there are conversations, but seeing them in action is really valuable. Any time you can have professional dialogue with other teachers I think is a good thing, so that definitely benefitted me as well. (Do you notice any change in student outcomes because of mentor observation?) *Well, after the Plickers, my students used them as little formative assessment; they liked the Plickers, so it helped me monitor their progress, so I could get a little more insight into student outcomes, so yeah.*

What are some of the challenges you encountered during the mentor observation process?

Honestly I think it's time, it is hard to, we didn't do a great job of setting up that pre- and post-it was really kind of "yep, hey I'm going to come in, anything you want me to look for?" "Not really." and then I would sit in then afterwards, like I said we had short dialogue that would really be our post-observation. And then there were some follow up conversations based on our

mentor/mentee meetings, but. (How did you manage them?) *We tried to find time for the follow up conversations but that is definitely something that I would change next time, is just say "hey, we really going to have the pre-, I need you to think of some things to look for" and as a teacher sometimes it's hard to come up with "I want you to look for this" so the easy thing to say is just, "no, just come in" and that's what happens, but I think if I was to do that again next time I would say "I need at least one specific thing you want me to look for whether it's transition or interaction or student engagement. Like I think there just needs to be something more concrete.*

In terms of collaboration with peers, in what ways have the professional interactions changed after the taking part in the peer observation process?

It deepens the conversations that can take place, because of instead of not having any insight, and just saying "oh yeah here's what I do" and kind of keeping it that way, I mean actually being in there and seeing it, it does change. Its like "I know exactly what happens. Granted its one time, that's why I think that more times would be helpful, but I think that actually being in someone else's classroom and seeing what they do, it allows you to talk a little bit more personally about, hey here's what I'm trying, and people are little more willing to take risks in conversation I think.

What are the motivating factors for you in the mentor observation process?

I love getting in other people's classrooms; I love everything about the observation process. As far as the mentor part of it. I guess I was told that I have to. I mean in reality, there's the part of 'mentors you are going to observe your mentees' and I think ideally I would get in there more often, they would get in my classroom. Those conversations just become richer the more often you get together and the more you see of each other. So, I think you don't make it a priority unless you have to sometimes, so I think that was probably the most motivating factor on the mentor part.

In what ways would you alter the mentor observation process to improve upon it?

I think the two things would be: First have it happen more frequently, like we've changed our teacher evaluation process, where instead of having three formal, it's having more ten drop-ins kind of a thing. Unfortunately that's hard to manage, but I think that more frequent and less formal ones are kind of good. And then, like I said, really having a goal of at least one thing that you want to look for, I think would provide some structure. The other stuff is going to naturally going to happen, but at least having one to focus I think would be good.

Participant-E: Mentee Observation

Describe your experiences with the mentor observation process

I liked having a mentor, having someone to go to ask questions whenever I needed. Whether it's on lessons, ideas for lessons, classroom things, or just general school building things. When [Mentor] *came into the classroom, we had a brief pre-observation, we didn't get, like, formally into everything, so it wasn't like intimidating. It wasn't like the type of meetings we had with the administration, when they make you do all that critical thinking process. It was more like "oh what are you going to do?" and it was kind of very informal. We didn't discuss it afterwards, we briefly discussed it maybe like at our next mentor meeting, but it wasn't like a pre- observation and post, so it was very informal, not intimidating at all and she only stayed for a little bit. Positive.* (As far as the observation period, [Mentor] was only in there a little bit?) *Yes* [Mentor] *wasn't even in there the whole block.*

What is your overall perception of peer observation on collaboration with peers?

Not really, it wasn't really, I don't think it changed that much because [Mentor] *came in* [Mentor] *kind of watched a little bit,* [Mentor] *was also doing some other stuff so it wasn't like* [Mentor] *was sitting there ticking things off or writing observation down. It was more like* [Mentor] *was in the room. I guess we didn't really get into anything, so It didn't change for my practice that way, the way an administrative observation would be where I more critical thinking might change something afterwards.*

How has the mentor observation process affected your teaching practice?

Not too much (Did you get much out of it?) *not the observations, but more the* [mentor] *meetings and the talking I guess rather than* [Mentor] *coming in and watching one lesson it's more talking to* [Mentor] *about different lessons and different things that have happened rather than the actual observation.* (Did you get any new strategies out of that or was it more the year long meetings) *It's more the yearlong type, definitely not just for that lesson I didn't change anything.* (So the lesson itself didn't lead to any changes, over the course of the year meetings is where the changes happened?) *Yes.*

In what ways have you benefited from the mentor observation process?

When [Mentor] *came in I was more thinking about what I was doing rather than just doing it. So when there's someone else in the room, I'm more conscious, I guess, of what I'm doing even if there is not a formal pre and post meeting.*

What are some of the challenges you encountered during the mentor observation process?

None, I guess there weren't really challenges. (Everything went smoothly?) *There never really is a problem with meeting times. There weren't really any challenges. I guess if there was a challenge, it's that we never really had a post* {observation} *and talked about it, so I guess that would be my only, not necessarily challenge, just something that probably could have happened and should have happened.* (A little more formal post-observation?) *Yeah, a set time where we could talk about it rather than just* [Mentor] *dropping in and just.* (Would you change your approach next time?) *Yeah, I would probably ask for a post, just because it is kind of nice to hear someone's feedback, even if I am more aware, I want someone else's feedback to see if they see things I don't see.*

In terms of collaboration with peers, in what ways have the professional interactions with peers after taking part in the mentor observation process?

I don't think they really changed, I get more input from other people I guess I'm more collaborative than before.

What are the motivating factors for you in the mentor observation process?

Well I guess because we have to, but at the same time I always like getting criticism, like good feedback, I like feedback and I don't like being on my own little island, so I guess even if we weren't mandated to do it, or forced to do it, I would still want to do it, just because you need to get other people's ideas because otherwise you will be on your own little island.

In what ways would you alter the mentor observation process to improve upon it?

I guess, just here, it's very informal, which is nice that it's not pressured I guess, but making sure that there is a pre and post, not even needing a sheet and going through it, but just making sure there are those times. Making that part of the criteria rather than just dropping in at some point, and maybe doing it twice, at like the beginning and end or something, more often.

Appendix H: Human Subject Approval

ST. CLOUD STATE UNIVERSITY
EDUCATION FOR LIFE.

Institutional Review Board (IRB)

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IRB PROTOCOL DETERMINATION:
Expedited Review-1

Project Title: Perceived Effects of Peer Observation on Collaboration between Teachers at a Minnesota High School

Advisor Frances Kayona

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: **APPROVED**

Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of participants in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

-Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

If we can be of further assistance, feel free to contact the IRB at 320-308-3290 or email ri@stcloudstate.edu and please reference the SCSU IRB number when corresponding.

IRB Institutional Official:

Dr. Marilyn Hart
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY

SCSU IRB# 1561 - 1975	**Type:** Expedited Review-1	**Today's Date:** 5/10/2016
1st Year Approval Date: 5/10/2016	**2nd Year Approval Date:**	**3rd Year Approval Date:**
1st Year Expiration Date: 5/9/2017	**2nd Year Expiration Date:**	**3rd Year Expiration Date:**