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Faculty Peer Review In Teacher Preparation: Does Peer Review Lead To Instructional Change?

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FACULTY PEER REVIEW IN TEACHER PREPARATION:
DOES PEER REVIEW LEAD TO INSTRUCTIONAL CHANGE?

By

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BA (University of Maine) 1998

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Presented to the Affiliated Faculty of

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Abstract

This action research case study investigated the impact of reciprocal peer review on the instructional practices of faculty in a teacher preparation program. The participants in this study were all teaching faculty in the teacher preparation program at a small private university in Maine. Based on the established research proving that peer review is an effective way to aid teachers in reflection and collaboration, this action research case study examined peer review as an avenue to improve teaching practice in a teacher preparation program. The positive outcomes of the implementation of peer review in teacher preparation were evident through review of all bodies of data within this research study. This study revealed that observing colleagues and being observed by colleagues increased awareness of teaching practice, increased camaraderie among faculty, provided insight into new instructional practices and led to some minor changes in instruction. In addition to affirming the positive effects of the peer review, potential changes and improvements were readily noted by all participants. The findings suggest that this practice has merit and is a valuable way to promote collegial conversation about teaching and improvements in personal reflection. While the outcomes identified in this study are supported by years of established research in other disciplines, additional research that examines the effectiveness of peer review in teacher preparation programs over time will be necessary to corroborate the findings of this study.

University of New England

Doctor of Education
Educational Leadership

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CHAPTER ONE

INTRODUCTION

Given increased focus on the quality of instruction in university settings (Drew & Klopper, 2013; Hendry & Oliver, 2012; Toth & McKey, 2010), post-secondary teachers must demonstrate effective pedagogical skills for delivering information to students. Post-secondary teachers must also be able to collaborate with students, colleagues from other departments, and with all stakeholders as members of the learning community (Hénard & Roseveare, 2012).

Researchers agree that most post-secondary educators have capacity in their lives for pedagogical improvement (Bouwma-Gerhart, 2012; Byrne, Brown, & Challen, 2010; Weller, 2009). The majority of post-secondary professors are not trained as teachers (Gearhart, 2012). While these professionals typically have extensive content and practical knowledge of the discipline in which they teach, few have training or experience in the actual art and science of teaching. Pedagogical improvement challenges teachers to reflect on the principles and methods of their instructional practices. The quality of pedagogical practices is especially important for teacher educators who are tasked with preparing pre-service teachers. Goubeaud (2004) argued that teacher educators must do more than talk about and lecture their students about effective instructional strategies. Teacher educators must actively model effective instruction to adequately prepare pre-service teachers to implement these strategies in their future classrooms.

Peer review among colleagues can provide an avenue with which to obtain formative feedback about teaching and learning with the intention of advancing teachers' learning and enriching their pedagogy via continuous and ongoing professional development (Brix, Grainger, & Hall, 2014). Peer review is the process of observing colleagues and providing feedback on

their teaching (Byrne et al., 2010; Toth & McKey, 2010). Peer review of teaching in the higher education sector continues to gain momentum and is being recognized as a strategy that has the potential to enhance the quality of teaching (Atkinson & Bolt, 2010). The benefits of peer review with regard to teaching practice have been widely researched and reported (Atkinson & Bolt, 2010; Byrne et al., 2010; O'Keefe, Lecouteur, Miller, & McGowan, 2009; Toth & McKey, 2010). These benefits include a positive impact on teaching practice, increased knowledge and skills, sharing of practice, increased awareness of the practices of others, social professional benefits, increased confidence, and positive benefits to students and their learning (Byrne et al., 2010; Toth & McKey, 2010). Peer review of teaching leads to the sharing of best practices and recognizes the difficulty of learning and improving pedagogy on one's own (Toth & McKey, 2010). Participants in peer review also report increased teaching confidence, exposure to new practices, revelation of new ideas, feelings of institutional support and a strong sense of collegiality (O'Keefe, Lecouteur, Miller, & McGowan, 2009).

Although there is a great deal of research regarding peer review (Atkinson & Bolt, 2010; Bouwma-Gearhart, 2012; Brix et al., 2014; Chester, 2012; Daniels, Pirayoff, & Bessant, 2013; Drew & Klopper, 2013; Marshall, 2004; Toth & McKey, 2010) and peer review is increasingly gaining momentum as peers observe and interpret teaching through their own unique experiences and perspectives (Atkinson & Bolt, 2010), there is an evident lack of research specific to teacher preparation programs. This research study on faculty peer review implemented the peer review process that has been proven successful in other academic disciplines to a teacher preparation program.

Statement of the Problem

Research has repeatedly shown that reflective teaching is important in strengthening both teaching and learning (Danielson, 2007; Lowenstein & Brill, 2010; Williams & Power, 2009). As teachers reflect on practice, they are better able to take control of their own professional development and make changes to improve the quality of their teaching. Within the organization that is the focus of this study, no formal system for personal reflection on teaching was in place. At the time of the study, there were no consistent and specific measures in place that supported faculty in the teacher preparation program in purposely reflecting on their instructional practices. The only baseline data that existed regarding the quality of faculty instruction came from end of semester student evaluations and one yearly formative evaluation from the director. While these evaluations were provided to faculty and reviewed, it was proposed that a more structured and purposeful reflective protocol could elicit more strategic change. Given the lack of structured reflection on pedagogy, the researcher recognized the need to establish a system that supported reflective practice in teaching.

Peer review has been shown as an effective practice that aids teachers in such reflection and collaboration (Byrne et al., 2010; Hendry & Oliver, 2012; O'Keefe et al., 2009; Toth & McKey, 2010). Peer review among university teaching faculty provides an avenue to formatively assess teaching faculty with the intention of promoting reflective and introspective practices (Bell & Mladenovic, 2007). Such practices may lead to positive change in instructional practices and the overall quality of teacher preparation programs.

Purpose of the Study

Aimed at both implementing a peer review system and analyzing incidents of change in teaching, this action research study examined formative peer review as an avenue to improve

excellence in instruction of university teaching faculty in a teacher preparation program at a small private university in Maine. Through the review of a variety of resources, a scarcity of literature specifically related to peer review among faculty in teacher preparation programs was revealed. It was apparent that there was a gap in the research about teacher educator peer review. Review of literature in other academic disciplines uncovered a wealth of research on the perceptions and impact of the faculty peer review process (Bouwma-Gearhart, 2012; Toth & McKey, 2010; Trujillo et al., 2009). Researchers continually emphasized that teaching is a scholarly activity and peer review of teaching in the higher education sector continues to gain momentum and is being recognized as a strategy that has the potential to enhance the quality of teaching (Atkinson & Bolt, 2010; Brix et al., 2014). Implementing such practices with teacher educators had the potential for similar positive impact on their teaching and the preparation of new teachers in the field.

Danielson's (2007) framework for teaching identifies the aspects of a teacher's role that have been proven through numerous empirical studies to promote improved student learning. She categorized the complex responsibilities of teaching into four domains: planning and preparation, classroom environment, instruction, and professional responsibilities. Danielson's framework was used when observing student teachers within the organization and was familiar to all study participants. Using the established framework in Danielson's instruction domain, this study examined current instructional strategies that faculty employed to establish baseline data about teaching practices, implemented a peer review system with faculty in the teacher preparation program, and examined the incidents of instructional change when the faculty members engaged in the formative and reciprocal peer review. During the study faculty engaged

in peer observations of teaching and held follow-up conversations to provide feedback about observed instructional practices, providing advice and recommendations for future teaching

Research Questions

Positive outcomes of peer review in many disciplines within the higher education sector have been widely reported (Bouwma-Gearhart, 2012; Toth & McKey, 2010; Trujillo et al., 2009). Among these benefits are the development of novel skills and ideas, improvements and increased confidence in pedagogical practices, and an increase in the camaraderie among faculty (Bell & Mladenovic, 2008; Bernard et al., 2011; Chester, 2012; Hammersley-Fletcher & Ormond, 2004). Given the proven value of peer review in other disciplines in higher education, this action research study sought to analyze the outcomes when peer review was implemented with teacher educators in a teacher preparation program (Atkinson & Bolt, 2010; Bouwma-Gearhart, 2012; Brix et al., 2014; Chester, 2012; Daniels, Pirayoff, & Bessant, 2013; Drew & Klopper, 2013; Marshall, 2004; Toth & McKey, 2010). With the evident gap in research of peer review specific to teacher preparation programs, the questions for this action research case study focused on establishing baseline data about current pedagogical practice and determining what changes occurred with the implementation of a peer review system in a teacher preparation program.

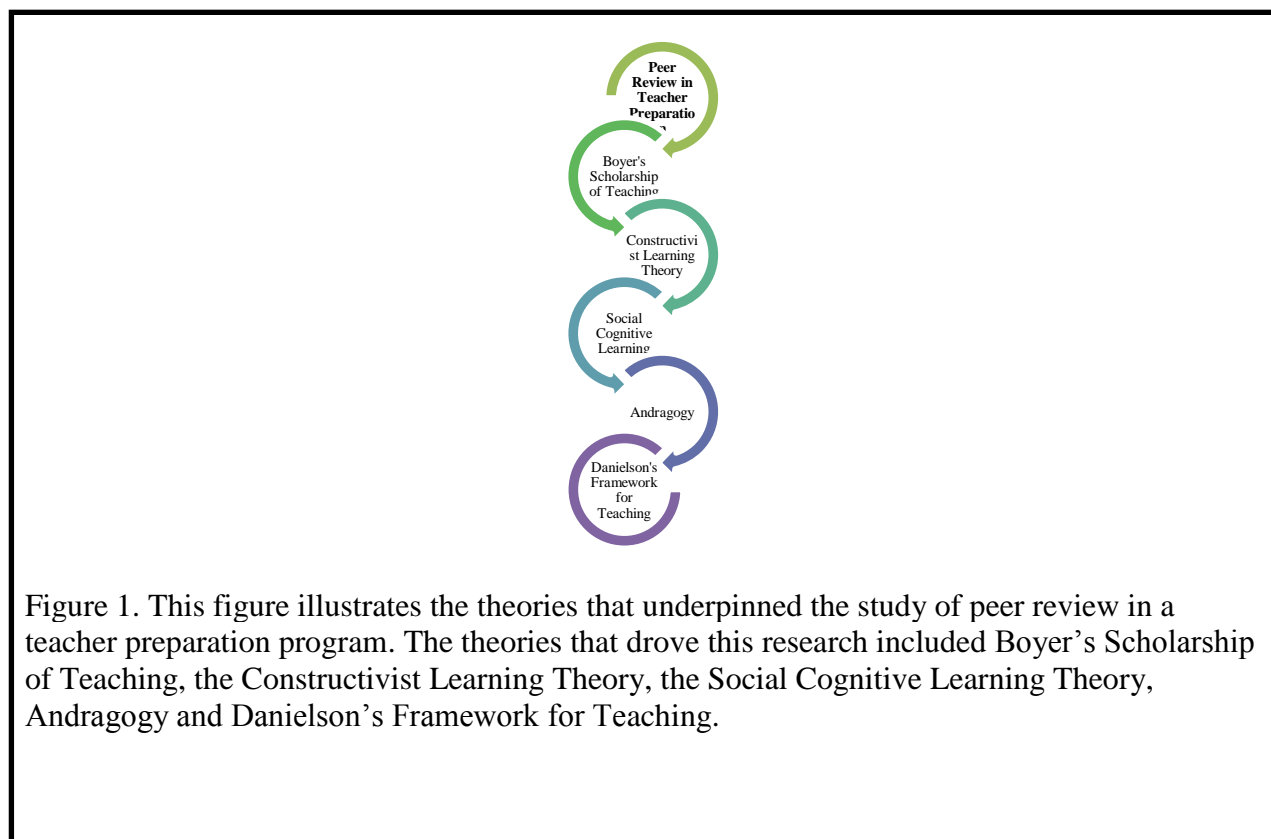
This study sought to uncover the impact peer review had on post-secondary teachers in a teacher preparation program. In addition, the instructional practices faculty employed and the changes in instruction they made based on collegial feedback were examined. Ultimately, this study investigated which practices faculty reported as improved and what new practices were implemented within on the peer review process.

Conceptual Framework

Driven by the need for increased knowledge of effective and reflective pedagogical practice in higher education, this study used a qualitative approach including observations, interviews, and surveys to determine the level of instructional change that occurred when faculty in a teacher preparation program engaged in a formative peer review process. Using the foundation of the adult learning theory and social cognitive learning theories, this research sought to uncover the impact on instruction when faculty engaged in reciprocal collegial observation and dialogue.

Figure 1 depicts theories that underpinned this study on peer review in higher education. These theories included Boyer's (1990) Scholarship of Teaching, the work by Bruner (1996) on the Constructivist theory, Bandura's (1989) Social Cognitive Learning theory, the theory of Andragogy proposed by Knowles (1990) and Danielson's (2007) Framework for Teaching.

Figure 1. Theories Driving the Research of Peer Review



The seminal work of Ernest Boyer (1990) proposed the scholarship of teaching model that argued that teaching should be an integral part of the scholarly and academic work of the teaching faculty in higher education institutions. He noted that while scholarship does entail engaging in original research, it also means stepping back from the work to look for connections between theory and practice and effectively communicating one's knowledge to students through high quality teaching. Boyer goes on to state that "teaching is a dynamic endeavor involving all analogies, metaphors, and images that build bridges between the teacher's understanding and student's learning" (p. 23). He emphasized that pedagogical practice must be thoughtfully planned, continuously examined and make relevant connections. Eggleston and Smith (2015) noted that the scholarship of teaching model emphasizes multiple teaching techniques and strategies that focus on the complex and integrated processes of pedagogy. Faculty peer review can provide an avenue in the scholarship of teaching to gain information about teaching practices and inform professors' instructional practices in their classrooms. Teaching should be viewed as a scholarly and reflective activity. Reciprocal peer review has the potential for great impact on the improvement of teaching and learning practices.

The instructional framework of Danielson (2007) was employed to measure the quality of instruction and incidents of instructional change in this study. Danielson's model divides teaching into clusters of four domains including planning and preparation, classroom environment, instruction, and professional responsibilities. The faculty that engaged in this study focused on Danielson's domain of Instruction, specifically on the topic of engaging students in learning. The areas included in Danielson's rubric for Engaging Students in learning evaluated during the peer review were: activities and assignments, grouping of students, instructional

materials and resources, and structure and pacing. Danielson noted that her framework is intended to serve many purposes, among them, as a foundation of professional conversation between practitioners who are seeking to grow in their teaching skills.

With the ultimate aim of developing a culture where faculty members are reflective about their teaching practices, the researcher anticipated that the implementation of a peer review system would result in positive transformation for faculty as they reflected on their teaching practices. The theories that were driving this research of peer review were the Constructivist and Social Cognitive learning theories and the Adult Learning Theory (andragogy). These theories suggest that teaching and learning are active, social processes, and in order to improve their classroom practices, faculty should work to actively construct their own understandings of teaching and learning (See Conceptual Framework, Implications for Teaching and Further Research for discussion).

Assumptions. The researcher assumed that engaging in peer review and reflecting on current teaching practices would cause positive incidents of change. It was assumed that faculty would be honest and forthcoming about their current practices and would be willing to take part in the project. It was also assumed that faculty members were interested in improving their teaching and that they understood the importance of reflective practice and its role in strengthening teaching and learning. The researcher assumed that the findings would be transferable to other programs of similar enrollment and faculty size and demographic profiles.

Limitations. The university institution that was the focus of this study is small in size with six to eight participating faculty. While the small sample size of this study was appropriate for such a qualitative action research study, the small number of participants made it difficult to generalize the findings across other disciplines on the campus and to other institutions.

Reliability may have been affected as there is currently no known information from previous research specific to peer review in university teacher preparation programs to compare this work to. The plethora of research on this topic proving its efficacy in other academic disciplines indicated that the positive impact has transferability to the teacher preparation setting. Because the semester was just fifteen weeks in length and few faculty members were teaching in the summer months, implementation of the peer review system and collection of data was limited.

This study included purposeful sampling with the intentional selection of education faculty which may again limit the ability to generalize the findings of the study. The use of semi-structured interviews of participating faculty presented limitations as well, as the data gathered from these interviews was filtered and interpreted by the researcher. Limitations to this included the researcher's skill, credibility, competence, and bias as the data was interpreted.

Scope. This research included surveys and semi-structured interviews addressed at faculty in a teacher preparation program at a small private university in Maine. The survey addressed current methods of instruction, as well as, questions about perceptions of the implementation of a peer review system. A post survey after implementation of peer review was aimed at measuring the incidents and types of changes. The semi-structured interviews included questions (Appendix F) similar in scope to the survey and were aimed at gathering additional personal insight into the implementation process and ensuing results. The surveys were developed by the researcher for use at one institution.

Rationale and Significance

Few can argue that reflection is not a good thing for educators (Hyacinth & Mann, 2014; Lowenstein & Britt, 2010; Williams & Power, 2009). Internal and collaborative dialogue between one's own knowledge and experience can result in a greater awareness of teaching and

learning (Hyacinth & Mann, 2014). Given that no formal system was in place to support the teacher preparation faculty at this institution in reflecting on their teaching practices, a peer review system that supported observation and reflection provided faculty with the opportunity to take a deeper look at their own teaching. The formative peer review system served as an avenue to provide and receive collegial feedback to enhance both teaching and learning. Feedback received during the peer review process elicited positive changes in pedagogical practice on the part of teacher educators, raising the potential to better prepare student teachers to enter their own classrooms upon graduation.

To ensure that pre-service teachers are adequately prepared to be educators in today's classrooms, teaching faculty must model introspective and reflective practices. If faculty expects students to obtain and provide feedback via observation of their teaching practices, they must be willing to do the same. Faculty in teacher preparation programs directly affect the quality of teachers being hired in schools. This influence has direct societal and educational benefits as the quality of a child's classroom teacher is directly related to their success and achievement in school (Rockoff, 2003). When implemented in a teacher preparation program, formative peer review can serve as an avenue to provide faculty feedback to enhance both their teaching and the learning of the pre-service teachers that they are tasked with preparing.

Definition of Terms

For the purpose of this study, the following list includes important key words associated with the study as defined by the researcher.

Andragogy. The practice of teaching adult learners; the adult learning theory (Knowles, 1988).

Constructivist Learning Theory. A theory of knowledge that argues that meaning and knowledge is constructed through one's own experiences and ideas (Orlich, Harder, Callahan, Trevisan, Brown, & Miller, 2013).

Faculty. Those employed to teach at the institution.

Feedback. Information about how one is doing in their quest to meet a particular goal (Wiggins, 2012).

Formative Feedback. Feedback that is informal in nature and used as a tool to help provide insight, potentially leading to the improvement of teaching practices (Trujillo et al., 2009).

Instructional Practice. The strategies employed to teach content (Orlich, Harder, Callahan, Trevisan, Brown, & Miller, 2013).

Pedagogy. The art and science of teaching; the method or practice of teaching (Alexander, 2008).

Peer Review. The process of observing colleagues and providing feedback on their teaching (Chism, 2007).

Social Cognitive Learning Theory. The theoretical perspective that individuals can learn by observing others (Bandura, 1989).

Teacher preparation Program. The discipline at the university focused on preparing classroom teachers in grades K-12.

Conclusion

Research has repeatedly demonstrated the positive impact that peer review has on teachers (Atkinson & Bolt, 2010; Bell & Mladenovic, 2008; Bernard et al., 2011; Brix, Grainger & Hall, 2014; Chester, 2012; Hammersley-Fletcher & Ormond, 2004). Among these benefits are

increased knowledge and skills, sharing of practice, increased awareness of the practices of others, social professional benefits, increased confidence, and positive benefits to students and their learning (Byrne et al., 2010; Toth & McKey, 2010). Peer review of teaching leads to the sharing of best practices and recognizes the difficulty of learning and improving pedagogy on one's own (Toth & McKey, 2010). Because of the lack of a formal system that supported such reflection on teaching practices within the organization that was the focus of this study, it was evident that there was a need to establish a system that supports such practices. Peer review among the university teaching faculty provided an avenue to formatively assess one another's teaching practices with the intention of promoting reflective and introspective practices. This process led to positive changes in faculty members' instructional practices. This study gathered baseline data on teaching practices, implemented a peer review system with faculty and analyzed surveys and interviews to determine incidents of change after faculty engaged in the peer review process. It was the assumption of the researcher that the collegial dialogue and feedback that were a part of this peer review could lead to instructional changes and would have a positive impact on teaching and learning.

CHAPTER 2

LITERATURE REVIEW

Peer review among colleagues can provide an avenue to obtain formative feedback about teaching and learning with the intention of advancing teachers' learning and enrich their pedagogy via continuous and ongoing professional development (Brix, Grainger, & Hall, 2014). Peer review of teaching in the higher education sector continues to gain momentum and is being recognized as a strategy that has the potential to enhance the quality of teaching (Atkinson & Bolt, 2010). As Brix, Grainger and Hall (2014) noted there has been a shift in the paradigm of professional development of teachers over the last two decades changing from isolated practices to models that support professional learning communities. Student learning outcomes and professional accountability have risen to the forefront of high quality instructional practice. Peer review among faculty in a teacher preparation program is an avenue to support reflective, introspective practices to ensure that high quality teaching strategies are being effectively modeled.

The purpose of this study was to examine peer review as an avenue to improve excellence in instruction and the quality of graduates in a teacher preparation program. The review of a variety of resources revealed a scarcity of literature specifically related to peer review among faculty in teacher preparation programs. Katitia (2015) insisted that the expert modeling of high quality instructional practice is fundamental to the preparation of pre-service teachers. Teacher educators must model the exemplary instructional practice that they expect their pre-service teachers to implement (Danielson, 2007; Katitia, 2015).

This literature review examined the interconnectedness of peer evaluation of teaching faculty in higher education and the evaluation of student teachers in teacher preparation

programs. Given the reflective practices in place within the evaluation of student teachers as they develop their teaching craft, it is important that the very faculty preparing them are similarly reflective.

Three areas of literature were reviewed including faculty peer review, the evaluation of student teachers, and characteristics of high quality feedback. Review of the literature on peer review of university teaching faculty provides a context and history of peer review. The evaluation of student teachers provides information about specific strategies, methods, and protocols for assessing student teacher candidates. The critical review of feedback provides insight about the best ways to provide formative feedback to both students and peer colleagues.

To conduct this literature review, multiple sources of information were gathered including professional journals, books, internet resources, and periodicals. Several databases were used to access the resources including ERIC, ProQuest, and Academic Search Premier.

Peer Review in Higher Education

Peer review refers to the process of pairing teaching faculty to reciprocally observe teaching practices to help teachers improve their practices, transform their educational perspectives and develop collegiality (Bell & Mladenovic, 2006). When used in university settings, this collegial process is designed to help university academics reflect upon and improve their teaching practices (Chester, 2012; White, Boem, & Chester, 2014). Bell (2002) defined peer observation of teaching as a

collaborative, developmental activity in which professionals offer mutual support by observing each other teach; explaining and discussing what was observed; sharing ideas about teaching; gathering student feedback on teaching effectiveness; reflecting on understandings, feelings, actions and feedback and trying out new ideas. (p. 3)

Formative peer review is an opportunity for an instructor to initiate and determine the objectives of a review with a colleague. It is common practice for the reviewer to then share observations and reflections with the person who initiated the request, fostering discussion and reflection about teaching practices (Iqbal, 2014). It is important, however, that the observation of colleagues is not the only dimension reviewed. This scholarly activity should be broader than observing teaching practices. The inclusion of syllabi review, assessment practices, online learning opportunities, and curricular design should also be considered (Atkinson & Bolt, 2010; Iqbal, 2014).

History of Peer Review in Higher Education.

Teaching is inherently part of the vision of all institutions of higher education (Galbraith & Merrill, 2012) and researchers agree that most post-secondary educators have capacity in their professional lives for pedagogical improvement (Bouwma-Gerhart, 2012; Bryne, Brown, & Challen, 2010; Weller, 2009). Over the past four decades, the evaluation of teaching faculty has seen significant growth (Brix et al., 2014). Toth and McKey (2010) referenced two significant educational peer review initiatives in recent years. The first was part of the American Association for Higher Education in the 1990s that involved 36 departments within 12 universities and the second in the United Kingdom beginning in 2002. Both initiatives promoted strategic plans and goals to promote teaching excellence through the use of peer review.

It is apparent that faculty members prefer not to engage in peer review processes that infer criticism or are part of an evaluative measure that impact promotion, pay, and tenure (Siddiqui, Jonas-Dwyer, & Carr, 2007). Rather than having their teaching inspected and criticized, faculty development teams are working to develop formative programs that allow for feedback, reflection, and professional growth in teaching (Atkinson & Bolt, 2010; Chester,

2012;). Evaluative, often punitive, observations have shown little benefit to professional development (Byrne et al., 2010; Iqbal, 2014). Peer observation of teaching has become increasingly common place in the university setting as institutions carefully examine the effectiveness of their educational systems (Byrne et al., 2010). Establishing protocols that support a collegial and supportive culture for peer review that emphasize growth and reflection are vital (Atkinson & Bolt, 2010; Chester, 2012; O'Keefe, Lecouteur, Miller, & McGowan, 2009).

Benefits of Peer Review.

The benefits of peer review with regard to teaching practice have been widely researched and reported (Atkinson & Bolt, 2010; Bouwma-Gearhart, 2012; Brix, Grainger, & Hill, 2014; Chester, 2012; Daniels, Pirayoff, & Bessant, 2013; Drew & Klopper, 2013; Marshall, 2004; Toth & McKey, 2010). These benefits include a positive impact on teaching practice, increased knowledge and skills, sharing of practice, increased awareness of the practices of others, social professional benefits, increased confidence, and positive benefits to students and their learning (Byrne et al. 2010; Toth & McKey, 2010). Peer review of teaching also leads to the sharing of best practices and recognizes the inherent difficulty of learning and improving pedagogy on one's own (Toth & McKey, 2010). Participants in peer review also report increased teaching confidence, exposure to new practices, revelation of new ideas, feelings of institutional support, and a strong sense of collegiality (O'Keefe, Lecouteur, Miller, & McGowan, 2009). Hammersley and Ormond (2005) also noted the significant perceived benefits to observers as well as those being observed. Through the vicarious experiences of observers watching the instructional practices of their peers, their own self-efficacy of pedagogy is enhanced, further supporting a reciprocal, collegial foundation for peer review (Hendry & Oliver, 2012; O'Keefe, et al., 2009).

In the action research study of Atkinson and Bolt (2010), peer observation of teaching was implemented with ten teaching staff members in a school of business with positive outcomes. In their study, the authors did note the importance of establishing collegial relationships where trust and respect were apparent and expected and where guidelines for the process were clearly articulated. Atkinson and Bolt emphasized that peer review has been identified as an important component of teaching and learning and should be embedded in the culture of the university.

Challenges of Peer Review.

While numerous studies have recognized the benefits of faculty peer observation, some professors express reluctance to participate, citing time pressures and concern about the potential scrutiny of their teaching practices (O’Keefe et al., 2009). Concerns about the objectivity of the observer, restrictions of academic freedom, and validity of the practice have also been cited as concerns (Galbraith & Merrill, 2012; Siddiqui, Dwyer, & Carr, 2007).

Methods of Peer Review.

The methods used for peer review vary greatly among post-secondary institutions. Some have established clear protocols for all participants while others support informal programs contingent upon collegial dialogue and conversation. For the purpose of this review, literature about both mandatory and voluntary programs and protocols was examined.

Mandatory peer review. When faculty are directed to engage in mandatory peer review, the power exercised from above can be negatively received (Brix et al., 2014; Burrows, Findlay, Killan, Dempsey, & Hunter, 2011; Byrne et al., 2010; Toth & McKey, 2010). Some researchers have found that while the scholarship of teaching should be emphasized in higher education, to impose this practice on instructors and mandate their participation, may not support reflection

and professional teaching development (Brix et al., 2014). The study of Brix et al. (2014) focused on peer review at a secondary school in Australia, examining mandatory peer review with 61 teaching staff. The goal of this study was to explore the rationale of mandatory peer review and teacher perceptions of the process. In this study, teaching staff engaged in peer review three times a year, once with another teacher from their department, another with faculty from another department and finally with the department head. During this peer review, focus was centered on the explicit links that were being made by teachers between teaching strategies and student learning outcomes. Although Brix et al. cautioned that such compulsory processes can lead to negative feelings of quality control and punitive accountability, positive outcomes and perceptions did emerge. Among these were the sharing of practices, the enhancement of teaching quality, positive change for teaching staff and the increase in capacity of teachers to be instructional leaders.

Hammersley-Fletcher and Ormond (2005) discovered mixed perceptions of mandatory, formalized processes. While some participants agreed that formalized, imposed structures created a more stressful environment and inhibited the process of peer review, others found that the clear-cut directives and agenda allowed for meaningful discussions around the pertinent issues surrounding teaching and learning (p. 501).

Voluntary peer review. Voluntary programs overcome resistance while eliciting faculty who are motivated to improve their teaching practices (Atkinson & Bolt, 2010; Chester, 2012). In their work, Atkinson and Bolt urged organizations to promote opportunities for faculty to participate in teaching observations on a voluntary basis. White, Boehm, and Chester (2014) countered this, claiming that the lack of faculty willingness to voluntarily engage in this process is of great concern.

Peer Review in Multiple Disciplines.

Through the research the implementation of peer review across multiple academic disciplines was revealed. Keefe, Lecouteur, Miller, and McGowan's (2009) study examined peer review as part of a multidisciplinary peer review program with the faculty in their health sciences programs. Through their work, they found that faculty reported increased confidence in teaching, confirmation of effective pedagogical practices and feelings of institutional support and collegiality. Similar outcomes were evident in the studies of Siddiqui, Jonas-Dwyer and Carr (2007) and Mcleod et al. (2013) in medical education. In these studies, the authors found that peer observation of teaching is an effective tool that provides rich, qualitative evidence and specific individualized feedback for teachers. It was noted in both studies that when conducted in mutually supported ways, peer review can create reflective change and growth for teaching faculty. Toth and McKey's (2010) work with peer review with nursing faculty at an Ontario university and Marshall's (2004) work with peer review in the theology and religion discipline further support the effectiveness of peer review across multiple academic disciplines.

Peer Review Protocols

It is clear that the scope of peer review of teaching should be more expansive than a single observation of instruction (Atkinson & Bolt, 2010; Bell, 2002; Bouwma-Gearhart, 2012; McLeod et al., 2013). Attention should be paid to the needs and desires of faculty to conceptualize and develop peer review programs that meet their varying needs (Chester, 2010). Multidimensional programs that consider observation of teaching in tandem with review of course materials, curriculum design, pre and post observation conferences, formative feedback, and discussions with students provide information that is more likely to lead to pedagogical growth and instructional reform (Atkinson & Bolt, 2010).

The study of McLeod et al. (2013) identified protocol including video recording and subsequent review of teaching observations as part of the peer review process. In this program, groups of colleagues reviewed, discussed, and critiqued segments of the taped lectures, providing feedback and suggestions. This played a significant role in facilitating the peer review process as the instructors could also see themselves in action, making dialogue increasingly powerful.

Tips for Peer Observation of Teaching Practices. Through their research, Siddiqui, Jones-Dwyer, and Carr (2007) identified several tips for effective peer observation models in higher education. These included: choose the observer carefully, set aside time for pre- and post-observation discussion, clarify the roles of the observer and the observed, familiarize yourself with the content of the course, select the observation instrument wisely, include students, be objective, resist the urge to compare, do not intervene in the teaching, and provide high quality, supportive feedback. Kenny, Mitchell, Chroinin, Vaughan, and Murtagh's (2014) work emphasized the need for a collaborative partnership viewed as a collective endeavor aimed at improving teaching and learning. This collaborative reflection ensures multiple perspectives and establishes a symbiotic sense of professional development (p.298).

Establishing a Culture for Peer Review

Effective peer review is contingent upon establishing collegial respect and trust (Atkinson & Bolt, 2010; Byrne et al., 2010 & Donnelly, 2007). Individualized feedback that fosters collaboration in a safe environment where colleagues feel safe to take risks is vital to establish as the relationship between peers is a critical factor in the enhancement of teaching practices (Atkinson & Bolt, 2010; McLeod et al., 2013; Weller, 2009). The establishment of a collegial culture fosters learning conversations between peers that are vital in the expansion of knowledge of teaching and learning (Byrne et al., 2010). Burrows, Findlay, Killan, Dempsey, &

Hunter (2011) supported the collaborative nature of the peer review process, emphasizing the potential of collegial networks forming when peer review of teaching is viewed as an integral part of teaching and learning by faculty. Weller (2009) maintained that enacting a system of peer review that is driven by developmental outcomes for the individual teacher will inherently contribute to widespread improvement across the institution. In their research, Hammersley & Ormond (2005) raised concerns, however, that the process of peer review was not contributing to wider school development initiatives within their institution. They emphasized the importance of developing systems of peer observation where participants have a commonality of purpose and perceptions. They noted that peer review systems also need regular refreshing for them to feel relevant to all stakeholders regardless of their teaching expertise or experience of the system (p. 502).

High Quality Peer Feedback

Paramount to the peer review process is the sharing of constructive and meaningful feedback. The decades of work of John Hattie (2011) reinforces the powerful influence high quality feedback has on achievement for teacher and student alike. Wiggins (2012) defined feedback as information received about how one is doing in their efforts to meet a particular goal. The challenge of how best to provide high quality feedback remains. Wiggins identified seven essential components of effective feedback. He maintains that, to be useful, feedback should be goal-referenced, tangible and transparent, actionable, user-friendly, timely, ongoing, and consistent.

Providing feedback in the context of peer review is a vital part of the process of reflection and professional growth. Participants in peer review continually note the importance of receiving individualized feedback regarding strengths and weaknesses (Atkinson & Bolt, 2010). Iqbal

(2014) cautioned, however, that professionals in higher education may resist providing constructive feedback to one another in an effort to preserve collegial relationships. He found that feedback was rarely shared, vague, superficial, and of little value to teaching growth. The reason, in part, may be that giving and receiving criticism is perceived as a significant problem for both parties (Hammersley & Ormond, 2004). This is supported by Johnson and Fiarmen (2012) who found that faculty may find the “prospect of peer evaluation unsettling as it violates the professional norm of egalitarianism-- the assumption that we're all equal” (p.1). Hendry and Oliver (2012) cautioned that weak or poorly framed feedback can be detrimental to the self-efficacy of teaching faculty.

The professional experience of the observing faculty providing the feedback is also important to note. Hammersley & Ormond (2004) found that faculty perceptions revealed that the feedback from experienced teaching faculty was better received and perceived as more meaningful as their wealth of experience added to the value of the reflective process of peer review.

Peer Review in Teacher Preparation Programs

The literature regarding peer review specific to faculty in teacher education programs is extremely scarce, virtually nonexistent. The efficacy of peer review in other academic disciplines is widely reported and the positive impact on teaching and learning is significant (Atkinson & Bolt, 2010; Bell & Mladenovic, 2006; Byrne et al., 2010; Chester, 2012; Donnelly, 2007). Advanced training as teachers suggests that faculty in teacher preparation programs possess ample skills and knowledge to enrich the teaching of their colleagues and themselves, particularly since this faculty supports student teacher candidates in their development as

teachers. Peer review is one avenue to share this expertise with one another and support reflective pedagogical practice. This assumption is not yet supported by research.

The Evaluation of Pre-Service Teacher Candidates

Inherently connected to the review of faculty in teacher preparation programs is the review and evaluation of student teacher candidates by faculty. Teaching faculty are charged with observing student teachers in action and providing constructive feedback aimed at assisting them in developing and honing their teaching craft. The work of Danielson (2007) clearly articulates a framework that defines the complexities of good teaching practice. This framework is currently employed as a means to evaluate student teachers within the organization and is the focus of this study.

The Framework of Charlotte Danielson

Grounded in the constructivist theory, the framework of Charlotte Danielson (2007) identifies the aspects of a teacher's responsibility that through empirical studies have been proven to promote student learning and growth (Danielson, 2007). Designed to provide a structured, shared understanding of teaching practices, this framework was developed to reflect the many different aspects of teaching practice and elicit professional conversations about pedagogical improvement (Danielson, 2007). Danielson emphasizes that her framework is beneficial to educators of varying levels of experience. She indicates that the framework can be effectively used in the preparation of new teachers, in the recruitment and hiring of new teachers, as a road map for novice teachers, as guidance for experienced teachers, as a structure for school improvement efforts and for communication between stakeholders outside of the classroom (Danielson, 2007; Vivian, 2011).

The Chicago schools adopted the framework of Danielson with the goal of establishing common language when discussing instructional improvement (Sartain, Stoelinga, & Brown, 2011). This school district's intention with the implementation of the framework as part of their teacher evaluation system was to be the foundation for conversations about changes in instructional practice (Sartain, Stoelinga, & Brown, 2011). The State of New York adopted the Danielson framework to ensure a consistent process for assessing teacher effectiveness (Viviano, 2012). Viviano (2012) notes that Danielson's framework is based on foundational research that demonstrates teacher effectiveness and has shown evidence that it is positively correlated to student growth.

Methods of Supervision

The methods of supervising student teaching candidates vary across the country though the inclusion of observation by supervising faculty is consistent (Buchanan, 2011; Mansell, 2013). Mansell (2013) raised questions about the qualifications of faculty observers and the tendency of faculty to view student teacher observations as a mundane mandate of their job. Interestingly, Deering (2011) noted the tendency of cooperative teachers to overstate the skills of the student teachers while understating areas needed for improvement. This lack of constructive feedback supports the concerns of Iqbal (2014) who purported that faculty in higher education tend to do the same. Mansell (2013) agreed, stating, "the process often involves both the candidate and observer going through the motions, with teacher candidates getting very little constructive feedback about their embryonic teaching practices" (p. 1). Mansell's ongoing discussions with student and cooperating teachers emphasized that too much time is spent racing for a final grade, won in his estimation by pleasing the cooperating teacher and supervisor. He

adamantly argued that not enough time is spent learning, experimenting, and risk taking in teaching practice.

Rigorous protocols for conducting observations of student teachers are indeed evident in some teacher preparation programs (Buchanan, 2011; Hobson et al., 2012). The observation of student teaching by clinical university faculty is supported and reinforced both through ongoing formative assessment measures and through more summative means including development of professional portfolios, evaluations from mentor teachers, reflective journaling, and videotaped lessons (Buchanan, 2011; Hobson et al., 2012).

Implications for Faculty Peer Review and Future Research

When considering the supervision of student teachers, the implications for the supervising faculty are significant. If supervisors expect student teachers to engage in multiple methods of instruction, assessment, and reflection, they should model the same practices. Establishing a framework for peer review that models the evaluation protocols in place for the student teachers under their supervision will develop a culture where high quality teaching practice and active reflection is a priority. The need for further research in the peer review methods of faculty in teacher preparation programs is needed. By utilizing evaluation tools that mirror those of their student teachers, faculty will model the reflective paradigm inherent in teaching, learning, and student achievement while improving their own practice through the constructive feedback from experienced colleagues. It is anticipated that the perceptions of both faculty and the students they supervise will be positive in nature. The use of the framework of Charlotte Danielson (2007), which is a research based evaluation tool grounded in constructivist theory, may be an avenue to achieve this reciprocity.

Conceptual Framework

Implementing a system of peer review that is driven by clear professional development outcomes for individual faculty members will contribute to instructional improvement across the many disciplines within a higher education institution. Guided by a reflective practice philosophy, the establishment of a professional culture that promotes collegial relationships where the goal of peer review is to sharpen and hone professional craft will improve teaching and learning within institutions. By implementing faculty peer review practices that mirror the evaluation of student teachers in the field, reflective practices will be modeled for teacher candidates, potentially improving professional teaching practices for both parties.

With the ultimate aim of developing a culture where faculty members are reflective about their teaching practices, it was anticipated that the implementation of a peer review system would result in positive transformation for faculty as they reflected on their teaching practices. The theories that were driving the research of peer review are the Constructivist and Social Cognitive learning theories and the Adult Learning Theory (andragogy). These theories indicate that teaching and learning are active, social processes, and in order to improve their classroom practices, faculty should work to actively construct their own understandings of teaching and learning.

In his work on constructivist learning theory, Bruner (1996) emphasized that learning is an active process. He purported that learners construct new ideas based upon both their background and current knowledge. Bruner encouraged the instructor and learner to engage in Socratic learning where active dialogue is at the forefront. Peer review stimulates active conversation centered on the active construction of understanding about teaching practice. Participants in this study had the opportunity to construct new ideas about their teaching based

upon their own knowledge and the feedback received from their peer review partner. The instructional framework of Danielson (2007) that was the tool used for peer observation in this study is grounded in this constructivist theory. Danielson's framework seeks to promote meaningful conversations about effective pedagogical practice and aligned seamlessly with the goals of this study. Danielson notes that when conversations about teaching practice are organized around a common framework, teachers are better able to learn from one another and enrich their teaching and student learning. Danielson's frameworks seek to structure professional conversations among teachers about exemplary instructional practice.

Bandura's (1986) Social Learning Theory posits that people learn from one another through observation, imitation, and modeling. Bandura's theory encourages continual reciprocal interaction which was a foundational component of this study. Peer review aligns firmly with the Social Learning theory as it promotes observation and reciprocal interaction among colleagues.

The work on adult learning theory by Knowles (1988) suggested that when approaching learning, adults are independent and self-directed, internally motivated, bring many life experiences to learning, and are most interested in the processes of application and problem solving. The process of peer review provides faculty with the opportunity to do these things. By engaging in and reflecting upon their own teaching and the teaching of others, faculty construct their understanding and knowledge of high quality pedagogical practice

Driven by the need for increased knowledge of effective and reflective pedagogical practice in higher education, this study used qualitative methodology including observations, interviews and surveys to determine the level of instructional change that occurred when faculty in a teacher preparation program engaged in a formative peer review process. Using the

foundation of adult learning theory and social cognitive learning theories, this research sought to uncover the impact on instruction when faculty engaged in reciprocal collegial observation and dialogue (Buchanan, 2011; Hobson et al., 2012).

Conclusion

Scholarship and professional development of teaching is vital for university faculty (Atkinson & Bolt, 2010; Bell & Mladenovic, 2007; Donnelly, 2007; Drew & Klopper, 2013). While methods for peer review vary (Atkinson & Bolt, 2010; Byrne et al., 2010; Donnelly, 2007; Drew & Klopper, 2013), what remain constant are practices that promote collegiality, reflection, and constructive dialogue (Donnelly, 2007). While challenging and potentially uncomfortable, providing high quality constructive feedback to colleagues must be strategic, meaningful, and specific (Iqbal, 2014). The literature reviewed favored practices of peer review that are voluntary and include specific protocols and feedback to promote meaningful conversations around teaching instruction and student achievement (Chester, 2012). As teaching is interpreted through multiple perspectives in peer review, attention must be paid to the establishment of an environment of collegiality, trust, and respect.

The importance of faculty peer review within teacher preparation programs has the potential to be far reaching as faculty model and support a reflective paradigm for the student teachers they supervise. Advocating a peer review system with faculty that mirrors the evaluation of student teachers promotes reflection, professional growth, and increased depth in pedagogical knowledge by both parties. Although the research in other academic disciplines is plentiful, the sparse research specific to faculty peer review in teacher preparation programs demonstrated the need to pursue this further.

CHAPTER THREE

METHODOLOGY

Within the organization that was the focus of this study, no formal system for personal reflection on teaching was in place. The purpose of this qualitative action research case study was to establish baseline data about teaching practices, implement a peer review system with faculty in the Teacher preparation program, and examine the incidents of instructional change when the faculty members engaged in a formative and reciprocal peer review. Using the foundation of the adult learning theory and social cognitive learning theories, this research sought to uncover the impact on instruction when faculty engaged in reciprocal collegial observation and dialogue. Aimed at both implementing a peer review system and analyzing incidents of change in teaching, the study focused on a teacher preparation program at a small private university in the state of Maine.

Given the evident success of peer review in other settings (Atkinson & Bolt, 2010; Bouwma-Gearhart, 2012; Brix, Grainger & Hill, 2014; Chester, 2012; Daniels, Pirayoff & Bessant, 2013; Drew & Klopper, 2013; Marshall, 2004; Toth & McKey, 2010), this study sought to uncover the impact peer review had on post-secondary teachers in a teacher preparation program. In addition, the instructional practices faculty employed and the changes in instruction they made based on collegial feedback was examined. Ultimately, this study investigated which practices were improved and what new practices were implemented based on the peer review process.

Given that qualitative research is suited to promoting great depth in understanding of an organization as viewed by the participants (Bloomberg & Volpe, 2012) it was an appropriate methodology to employ for this research study (Bloomberg & Volpe, 2012; Creswell, 2012). As one type of qualitative research, action research is a strategic, reflective process that involves deep analysis of one's professional practice (Riel, 2016). Riel notes that action researchers work collaboratively with colleagues to propose new courses of action to improve their work practices (p. 1). This study involved inquiry into current teaching practices with an emphasis on creating positive transformational change within the teacher preparation program through the implementation of peer review. For the purposes of this research, a peer review system was implemented to support faculty in engaging in introspective reflection and collegial conversation about teaching practices. Incidents of change in teaching practices were evaluated after this intervention was carried out.

Merriam (2009) defined case study research as a detailed description and analysis of a bounded system. Since this study focused on one particular program, methodologies that were in alignment with both case study and action research were appropriate. The research sought to explain the present circumstance within the teacher preparation program and examined the impact on teaching practices when faculty engaged in peer review. Utilizing the case study methodology, multiple sources of data were gathered and analyzed with the intention of answering questions about the system. This data was gathered through surveys and semi-structured interviews.

Setting

The setting of this study was a teacher preparation program located within the College of Health and Education at a small private university in Maine. Within all programs at the

university, approximately 2,600 undergraduate students and 500 graduate level students were enrolled. Of this number, approximately 100 students were enrolled in the teacher preparation program. Within the entire university, 113 full time faculty members were employed, as well as a number of part time and adjunct faculty. Of these faculty members, six full-time and two part-time faculty members made up the teacher preparation faculty.

The teacher preparation program received initial program approval in 2003 and is a part of the School of Education within the College of Health and Education. This program consisted of six full time faculty members including a Director, an Associate Professor, an Assistant Professor, two Instructors, a Clinical Supervision Director, and a number of adjunct instructors for varying methods courses. The faculty members in the teacher preparation all held advanced degrees in education and boasted decades worth of classroom teaching experience. The teacher education program offered degrees in Elementary Education, Physical Education, Secondary Education (with concentrations in English, Life Science, and Physical Science), Educational Studies, and Health Education.

Participants/Sample

In an effort to yield the most relevant and important information about the case under study, purposeful sampling was used to select the participants for this case study. The participants for this study were the six faculty members teaching in the teacher preparation program at the university. Criteria for the selection of participants required that all participants taught an undergraduate course in the teacher preparation program in the Elementary Education, Physical Education or Secondary Education programs; had supervised student teachers in the field; and were familiar with and utilized the rubrics of Danielson (2007) in their observations of student teachers. The rubrics of Danielson had been used in the department since 2006 as a tool

to evaluate student teachers in their classroom placements. Faculty were very familiar with the rubrics, their purposes and use. Therefore, no formal training was provided to faculty on the use of the rubrics.

The participants were all teaching faculty and included the program director, an assistant professor, an associate professor, the clinical supervision director, a full-time instructor, and two part-time instructors. The work responsibilities of all participants included teaching undergraduate courses and supervising the fieldwork of student teachers. Two faculty members also taught graduate level courses in the Masters of Teaching program at the university. All faculty members held advanced degrees in the field of education. One faculty member held a terminal Ed.D degree and another held a Certificate of Advanced Study. The remaining four faculty members all held Master's degrees in education. During the time of this study one of these six was working to complete a doctoral degree in Higher Education.

Data Collection Plan

Multiple data sources were used to obtain an in-depth understanding of the case under study. Triangulation of these data sources added rigor and depth to the study and provided corroborative evidence (Creswell, 2007 as cited in Bloomberg & Volpe, 2012). Data was collected through interviews and surveys. For the purposes of this study, each participant was its own distinct data set as their responses on the initial and subsequent surveys were compared after they engaged in the peer review process.

Survey.

Prior to implementing the peer review process, a cross sectional survey design was used to collect data (Appendix A). The initial survey was used to examine current attitudes, beliefs, opinions, and practices (Creswell, 2014) of instructional practices employed in the classroom.

This survey, developed by the researcher, established baseline data for the study and included both questions that were rated on a Likert scale and open ended questions. The questions focused on identifying current teaching practices that faculty employed in their classes, methods that they used to reflect on their teaching, and perceptions of the implementation of a new peer review system.

Peer Review.

During the second phase of the study, faculty members were randomly paired to observe one another's teaching through the peer review process. Before engaging in observations of teaching, faculty members met with their partners in a peer observation conference where they discussed the areas of their teaching that they wanted to obtain feedback about. During this conversation, those being observed had the opportunity to share additional information relevant to the course including course syllabi, agendas and any other pertinent information to the course. Data during the faculty observations were collected using one of the instructional rubrics (Appendix B) of Danielson's Framework (2007). For the purposes of this study, the rubric for Danielson's Domain 3: Instruction, Component 3c: Engaging Students in Learning was chosen as this rubric tied directly into the instructional practices in the classroom. Reflecting on classroom instructional practice was the key focus of this peer review implementation. Permission to use Danielson's rubric was granted by the Association for Curriculum and Development, the publisher of Danielson's book.

Information obtained from the use of the rubrics was supported by narrative feedback based on a researcher-developed observation form (Appendix C). This observation form mirrored the form that was being used in the department to evaluate student teachers and thus

was very familiar to all participants. The information obtained from these observations was used to elicit conversations about teaching and provide feedback about teaching practices.

Interviews.

Interviews were conducted after participants engaged in the peer review process. The use of semi-structured interviews was chosen as an additional data collection method as it had the potential to elicit rich insight from the participants. The use of open-ended questions allowed the research participants the opportunity to voice their experiences and perceptions of peer review. These one-on-one interviews included open-ended questions centered on the perceived impact of engaging in the peer review. Both note taking and audiotaping strategies were employed to document the interviews. Each interview was transcribed and analyzed for patterns. Member checking was utilized as an additional strategy to ensure the validity of information.

Follow-Up Survey.

Another survey (Appendix D) was administered to all study participants upon completion of the observations. Using both questions based on a Likert scale and open-ended questions, this survey asked participants to identify changes they made or planned to make to their teaching based on their engagement in the peer review.

Analysis

Data analysis reflect the process and steps articulated by Creswell (2012). These steps included preparing and organizing the data, engaging in an initial exploration of the data, coding for themes, using narratives and visuals to represent the data, interpreting the findings through personal reflection and connections to literature, and triangulating the data to validate and corroborate the findings (Creswell, 2012).

Preparing and Organizing the Data.

Initially, the data was organized in computerized files according to the type of data: interview notes, observations, interview transcriptions and documents. Duplicate copies of all files were kept on the researchers password protected hard drive as well as a thumb drive. This thumb drive was kept in a locked file cabinet. Transcriptions of interviews was completed and converted to text documents. Space was allotted on the transcription for additional pertinent notes and insight. Hand analysis of the qualitative data was used to identify and color code common language, themes, and patterns. To mine the data further to identify patterns, they were run through the online electronic source, QDAMiner Lite. Textalyser.net was also utilized to identify key words and phrases within the data sets.

Initial Exploration of the Data and Coding of Themes.

Once the data was organized and transcribed, preliminary exploration analysis (Creswell, 2012) helped the researcher to gain an overarching sense of the data obtained and its relevance to the research questions as a whole. Both the text and audio transcriptions were evaluated by the researcher. The data was then coded by identifying significant text segments, identifying code words and patterns, and aggregating codes together to form themes or categories. The categories included the major themes of faculty perceptions of peer review, being observed and serving as the observer, feedback, next steps, positive outcomes, instructional strategies employed and incidents of change.

Interpreting the Findings.

The interview data was presented in narrative form and key points and insights of the participants were highlighted by the researcher. The data were interpreted using the elements identified by Creswell (2012) and include a review of the major findings and answers to the

outlined research questions, personal reflections by the researcher about the data and its implication to the teacher preparation program, personal views supported by the established literature on peer review, limitations of the study and suggestions for future research.

Validating Findings.

In order to increase validity of the data, triangulation was employed to corroborate evidence from the different participants, the types of data, and the method of collection (Creswell, 2012). Drawing on multiple sources of data, this triangulation ensured increased accuracy of the study and its findings. Member checking, the process in which the researcher provided individual narrative transcripts to each participant to check for accuracy of the content, was also employed to ensure that study participants agreed that the identified themes were accurate and representative (Creswell, 2012). Participants were asked to read the narrative summaries of their interview for accuracy. This process increased the level of credibility and validity of the research findings.

Participant Rights

The subjects of this research entered the study voluntarily and were given all pertinent information regarding the study and its purposes. Any potential harm to participants was minimal. Potential benefits to participants included increased skill and knowledge in instructional pedagogy and increased camaraderie among colleagues. It was the opinion of the researcher that these benefits outweighed any potential harm to the subjects.

Informed Consent.

Participation in this study was completely voluntary and participants retained the right to withdraw from the study at any time. An informed consent form (Appendix E) was provided that outlined the purposes of the study, description of benefits and risk, and who to contact with

pertinent questions about the research and participant rights. The informed consent form articulated measures that were taken to ensure confidentiality. This confidentiality was achieved through the use of randomly assigned codes to participants and the storage of all data on a password secured hard drive and locked file cabinets in the office of the researcher.

Potential Limitations

As an insider researcher, it was imperative that the researcher practiced conscious, ethical decision-making to ensure the validity of the case study. The researcher acknowledged that personal bias may cause data to be analyzed in a way to encourage self-fulfilling prophecies as the data gathered from the semi-structured interviews was filtered and interpreted by the researcher. Limitations to this included the researcher's skill, credibility, competence, and bias as the data is interpreted.

While appropriate for a qualitative action research methodology, the small sample size of the case study made it difficult to generalize the findings across other disciplines on the campus and to other institutions. The results of this study may be transferable, however, as readers make connections between the study's findings and their own experiences and organizations. Though there is ample research available that addresses the importance of peer review in the higher education sector, reliability may be affected as there is currently no known information from previous research specific to peer review in university teacher preparation programs for comparison. Because the semester was just fifteen weeks in length and few faculty members were teaching in the summer months, implementation of the peer review system and collection of data was limited. The length of this study, approximately three months, was a limiting factor as participant perceptions may change over time.

CHAPTER 4

RESEARCH FINDINGS

The purpose of this research study was to implement a peer review system in a teacher preparation program within a small private university and analyze incidents of change in teaching when faculty engage in reciprocal peer review. This action research study was aimed at examining formative peer review as an avenue to improve teaching instruction among faculty within the teacher preparation program. Given the positive outcomes and proven value of peer review identified in other academic disciplines within higher education, this action research study sought to analyze the outcomes when peer review was implemented with faculty in a teacher preparation program (Atkinson & Bolt, 2010; Bouwma-Gearhart, 2012; Brix, Grainger & Hill, 2014; Chester, 2012; Daniels, Pirayoff & Bessant, 2013; Drew & Klopper, 2013; Marshall, 2004; Toth & McKey, 2010).

With the evident gap in research of peer review specific to teacher preparation programs, the questions for this action research case study focused on establishing baseline data about current pedagogical practice and determining what changes occurred with the implementation of a peer review system. Ultimately, this study investigated participant perceptions of the peer review process and which teaching practices were improved and what new practices were implemented based on the peer review process.

Analysis Method

Multiple data sources were utilized to obtain an in-depth understanding of the case under study. Data were collected through pre- and post-implementation surveys, as well as through in-depth semi-structured interviews after the implementation of the peer review model. During

these in-depth, semi-structured interviews, study participants described their perceptions and experiences of the peer review process and instructional changes they made based upon their participation in the formative peer review.

For the purposes of this study, data were analyzed holistically to identify themes and individually with each participant serving as their own data set. Once all data were collected and the interviews were transcribed, an initial exploration of the data was completed. During this initial exploration, each interview transcript was read through thoroughly twice by the researcher and notes of emerging preliminary themes were made. The data was then coded for specific themes. This coding was accomplished through the use of color coded post it notes representing each identified theme. These themes were then categorized on chart paper to identify patterns of responses within the interview transcripts. Further coding was accomplished by mining the data using the QDA miner software.

The data from the pre- and post-implementation surveys was analyzed for each individual participant, as well, as for the whole group. Tables were generated to display the data set for each individual participant.

Presentation of Results

When analyzed holistically, several themes emerged from the data. The themes were revealed through analysis of all data sources including the interview transcripts and open ended questions on the surveys. These themes included participants' perceptions of observing a colleague and being observed by a colleague, participant perceptions of giving and receiving feedback, instructional changes that were made based upon participant engagement in the peer review, perceived positive outcomes articulated by participants, suggested changes to the implementation of the peer review model, challenges that arose throughout the process, and next

steps. While each of the themes identified are being reported discretely, it is important to note that there was overlap among the themes. The following section discusses each identified theme in greater depth.

Theme One: Participant Perceptions of Observing a Colleague and Being Observed by a Colleague

When asked about their perceptions of engaging in the peer review as an observer, participant responses were overwhelmingly positive. All participants commented on the value of this practice noting that having the chance to sit in on someone else's classroom is very valuable as they learned by seeing what other people do and learn new strategies and avenues with which to engage students in their learning. As one participant stated,

I always find it (observation) a really great learning opportunity for myself because not only are you watching for certain behaviors, but you have to be analyzing what pedagogical principles the behavior or activity are based upon and whether it is effective or not. So there's a lot of analysis that you have to do while you are watching so I think it is a great learning opportunity.

These sentiments were reinforced by another participant who noted, "I always get great ideas when I observe other people teaching and think about my teaching and how I could apply some of the things they are doing". Another participant described the comfort she felt with having a colleague as part of her class. She emphasized the camaraderie that she felt and her appreciation for the opportunity to get to know one another better.

Participants expressed that being observed heightened their sense of awareness and reflection on their teaching. As one participant stated,

You're always up a notch. It moves you up a notch, because even when you are used to it, you're still thinking more about what you are doing, and it's actually very good.

Everyone needs to stop and think about what they're doing.

Several other participants echoed these sentiments, adding that although they see great value in it, the process of being observed was a bit nerve wracking. In her interview, one participant stated,

I don't mind being observed because I think it is useful, and I think anybody that observes you can point out things you could do better or at least get you to think about why you do this, or why you don't do this, and I think that is useful too.

Another participant emphasized that having a witness to her teaching was helpful. She noted that the observation provided her with a calming feeling that she was not alone during a difficult and challenging class session.

Participants mentioned that observer style was an important consideration within this theme. It was noted that each observer has a different style of observing and that each observer comes to it with a different approach. In this case, the participant went in as a "fly on the wall", knowing that her presence would make a difference to the teaching and learning taking place. She chose not to interact with students while she was observing, however her peer review partner readily engaged with the students and circulated the classroom while observing.

The interviews with participants demonstrated that engaging both as the observer and the observee had important positive outcomes for all participants. Among these were an awareness of instructional practices, reflection on teaching, and the gaining of new ideas and strategies.

As noted in Chapter Two, in his research, Iqbal (2014) cautioned that professionals in higher education may resist providing constructive feedback to one another in an effort to

preserve collegial relationships. He found that feedback was rarely shared, vague, superficial, and of little value to teaching growth. In this study, participants agreed that providing feedback to colleagues can be tricky and that how the feedback is delivered and the nature of the relationship among colleagues is also a contributing factor. Two of the six participants noted that they felt comfortable giving feedback to their peer review partner as they made it easy to deliver. One participant noted that while the positive feedback she received was affirming, she wished there were some more specific constructive suggestions that she could apply right away.

Theme Two: Instructional Changes That Were Made Based Upon Participant Engagement in the Peer Review

Instructional change was at the heart of the research questions for this study. While one participant noted that no changes were made to her teaching as a result of this work, five of the six participants noted changes. The changes they noted included more strategically integrating and identifying the standards that are driving the class session, the implementation of a daily class agenda, the use of a timer to improve time management, attending more purposefully to classroom discussion and discourse, changes in the nature of questioning, providing more leadership opportunities for students, the inclusion of learning objectives, and following the lead of students with regard to discussions of the class content.

It is important to note that the changes faculty identified making after the implementation of the peer review and feedback from their partner were not in alignment to those that they identified on the baseline survey as ones that they were interested in improving or changing with the exception of one faculty member who was interested in improving her questioning practices. On this participant's follow-up survey, she identified this as an area that was improved.

Theme Three: Positive Outcomes for Both Members

Many positive outcomes were noted both in the context of the interviews and in the surveys. In addition to those previously noted with regard to observing others (gaining new insights and ideas, learning by watching others, and reflecting on teaching), participants noted that engaging in this process models what they expect of pre-service teachers, which they saw as beneficial in demonstrating reflective practice. Another participant emphasized that the peer review process did not feel evaluative. In her words, “It’s not like you’re being assessed, it’s more like you are being helped.” Being able to spend extended time with a colleague, observing teaching and engaging in conversation was another positive outcome of this experience. One participant noted that this experience was like a “refresh,” an opportunity to press pause in the daily teaching process and think about what’s going on in the classroom. This comment was supported by another participant who noted that this was a great opportunity to engage in conversation about teaching and learning.

Theme Four: Suggested Changes to the Implementation of the Peer Review Model and Possible Next Steps

While the perceptions of this peer review experience were overwhelmingly positive, several suggestions for changes and improvement were made by all participants. Among these changes was having a clear purpose for why peer review is occurring and what exactly participants should be taking away from it. While one participant noted that the structure of the outlined process worked to make it more uniform for everyone, two participants noted that engaging in more informal, frequent visits would enable the observer to track changes and the impact of their feedback on instruction. One participant suggested naming the process “peer visits” rather than “peer review” explaining that this change in terminology might create a less

evaluative and less formal perception of the process. This participant also noted that given that relationships, trust, and respect are at the heart of a process like this one, self-selecting peers to visit might be an option in the future. Eliminating the written observation would also make it seem less formal and less evaluative. This suggestion was supported by another participant who suggested having a more casual model where colleagues sit in on classes and have a conversation without a written report of their findings.

Another suggestion for change included having groups of three rather than groups of two so that each person has two observers. It was noted that this would increase the reliability of the process, lead to more feedback and increased depth in the collegial conversation.

Continuing this process over an extended period of time was also a recommendation for change and future work. As one participant said, "I think it would be a really great idea to evaluate the effectiveness of this by going back six months or a year later, taking out the written observations and asking or observing whether or not those who have been observed have actually implemented the suggestions". Sharing the success of peer review with other disciplines across campus was also expressed as another avenue to explore.

Theme Five: Challenges Faced by the Participants through the Peer Review Process

The small number of faculty within the teacher preparation program created some challenges among participants. Among these were colleagues who were paired with faculty members that they viewed as their supervisor. This kind of partnership led to feelings of stress and uncertainty when giving feedback. As one participant stated, "I felt as though she (my partner) was more of a supervisor. So a true peer would have been more worthwhile and caused less anxiety and stress. I truly felt nervous writing the report." Although in the interview, she continually noted how valuable the overall experience was, this sentiment was echoed by a

second participant who noted that as the observer of her supervising director, she worried that her written report would sound foolish.

Individual Participant Data Sets

The following data sets display the data for each individual participant, including their responses on both the baseline and follow up surveys. The following discussion will compare these results, adding insights revealed from the interview.

Participant One. In the baseline survey, Participant One strongly agreed that she often reflected on her teaching though disagreed that the quality of her reflection was high. The follow-up survey revealed that this participant agreed that she reflected more frequently and with increased quality when being observed. Observing her partner also increased the quality of her reflection as demonstrated in the rating of four on the follow up survey. This participant expressed interest in engaging in the peer review in the baseline survey and agreed that she changed teaching practices, found the feedback helpful and was interested in continuing the peer review model in the department as a way to promote increased reflective practice. In her interview, she emphasized the value of this practice noting that peer review helped her to think about her own teaching to become a better teaching professional. She noted that both observing and being observed proved valuable and was a great way to model reflective practice to pre-service teachers. In her words, “I think it is very helpful, especially as an observer. You learn so much and even though when I’m observed, I’m always a bit nervous it is a very valuable experience”. As a result of the peer review, she stated that she would implement the use of timers to keep students engaged and on task.

Participant Two. Participant Two also strongly agreed that she regularly reflected on her teaching though disagreed that the quality of this reflection was high. Participant Two was eager

to engage in the formative peer review model as evidenced by her strongly agree ratings on the baseline survey. Her responses on the follow-up survey revealed that when being observed and observing others, the quality of her reflection increased. When compared to the baseline survey, it is evident that the peer review model increased the quality of her reflection on teaching.

Participant Two strongly agreed that she found feedback obtained from this process helpful and agreed that she changed teaching practices based on engaging as both the observer and observee in the peer review process. A specific change she noted was placing increased emphasis on learning standards in her class. Her strong ratings on the follow-up survey were supported by her comments in the interview. As she noted, when you are being observed, your awareness of your teaching is heightened as it causes you to stop and think about what you are doing and why. She noted that the informality she felt during the process led her to feelings of being helped rather than evaluated.

Participant Three. Participant Three felt strongly that she often reflected and that the quality of that reflection was high. This was evidenced by her ratings of 4 on all areas of the baseline survey. This participant was eager to participate in the formative peer review and was interested in improving instructional practices relative to questioning strategies, student feedback, and student engagement in small groups. While the follow up survey did not reveal improvements in any of the areas noted in the baseline survey, this participant noted that she strongly agreed that she made changes based upon engagement in the peer review including the inclusion of learning objectives, increase in student leadership opportunities, and increasing student voice. Using this model as a way to promote reflective practices within the teacher preparation program was strongly supported by participant three. These sentiments were supported in her interview as she revealed that observation is a great learning opportunity

because “not only are you watching for certain behaviors as the observer, you are analyzing what pedagogical principles the activity is based upon and how this can impact your own teaching”.

This participant expressed an interest in elaborating this process by going back in six months or a year to see if the ideas discussed in the peer review conference were implemented. Participant Three is eager to formalize this process and make it part of ongoing work within the department.

Participant Four. The responses by Participant Four on the baseline survey revealed that she was not eager to participate in the peer review process though she did participate without evident complaint. On the baseline survey, this participant did express an interest in improving her lectures to increase the level of student engagement. While this participant did not appear eager to participate in the peer review, her responses in the follow up survey revealed that she strongly agreed that the peer review had a significant positive affect on the quality of her reflection and the changes she made to her teaching. Data from the follow up survey revealed that she views the peer review model as a good way to promote reflective practices within the department and should be continued. She noted that being observed caused her to reflect on her teaching and that observing her partner revealed new ideas, approaches and strategies with regard to her own teaching.

Participant Five. While her responses in the baseline survey revealed that Participant Five was readily interested in participating in the peer review by being observed and observing another, her responses on the follow-up survey demonstrated that she gained little insight from engaging in the process. Her additional comments that were included in the follow- up survey suggest that the protocol of this particular peer review may be to blame. She clarified her responses on the follow-up survey with the following comments:

From my perspective, working with colleagues to improve instructional practice has merit and might be worth exploring. Naming the process “peer visits” rather than “peer review” might create a less evaluative and less formal perception. I believe that relationships, trust, and respect are at the heart of a process like this. Self-selecting peers to visit might be an option in the future. Eliminating the written observation would also make it seem less formal and less evaluative.

In the post implementation interview, this participant did share that observing others provides an interesting opportunity to see different approaches and styles of teaching. She reiterated the importance of having a more casual forum for the peer review where colleagues are just sitting in and watching and then having a conversation about the teaching without any form of written report.

Participant Six. In the initial, baseline survey, Participant Six agreed or strongly agreed in all areas measured. She indicated that she often reflects on her teaching and that she viewed the quality of her reflection as high. Her interest in engaging in the process was evident both as the observer and observee. This participant indicated several areas in her instruction that she would like to improve or change including, modeling, explanation, student mentoring, peer conferences, strategies for direct instruction, and questioning. In her post-implementation interview, this participant did indicate that she made changes to the quality of her questioning as expressed in the baseline survey.

Participant Six’s follow-up survey indicated that she agreed or strongly agreed in all areas. She strongly agreed that observing increased the quality of her reflection, that the feedback she received from her partner was helpful and that the peer review process is a good way to promote reflective practice. She agreed that she reflected more and with better quality

when she knew she was going to be observed. She noted that, as a result of engaging in this process, she plans to pose more prompts looking for knowledge and application related to the content. Through being observed and the follow up conversation with her partner, she proposed implementing more activities that cause students to take the perspective of a teacher.

A Holistic Look at the Implementation Survey Results

The following figures display the survey data for the initial, baseline survey and follow up survey (See Figure 2 and Figure 3.). These surveys were scored on a four point Likert scale where 1 was strongly disagree, 2 disagree, 3 agree, 4 strongly agree. When reviewed holistically for all participants, it was apparent that all faculty felt that they reflected on their teaching prior to their involvement in the peer review. While all faculty reported that they reflected on their practice, half of the participants disagreed that the quality of their reflection was high. Five of the six participants were interested in engaging in the peer review and observing and being observed by a colleague.

Figure 2. Baseline Survey Results: Faculty Perceptions of Reflection and Instructional Practice Prior to Engaging in Peer Review

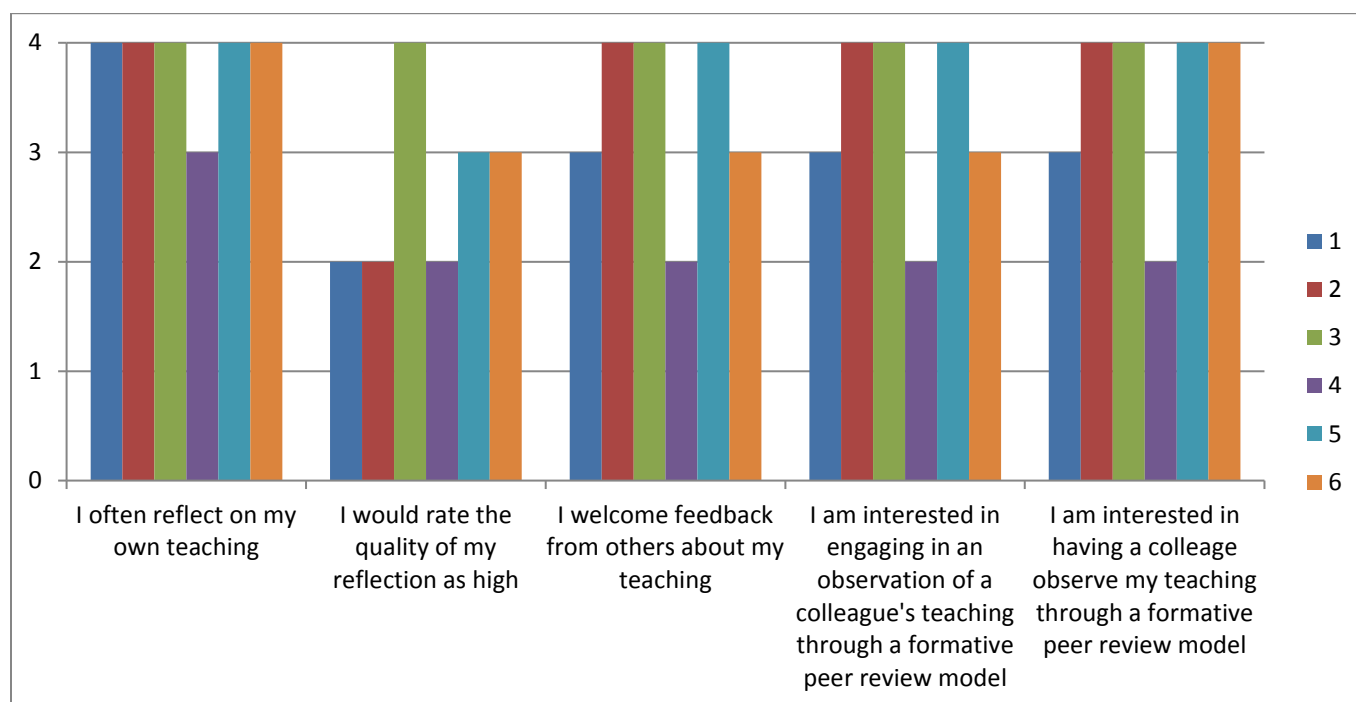


Figure 2. The baseline survey results show faculty perceptions of reflection and instructional practice prior to engaging in peer review. Participants rated their perceptions on a four point Likert scale with four meaning strongly agree, three meaning agree, two meaning disagree and one meaning strongly disagree.

The follow up survey revealed that 5 out of 6 participants either agreed or strongly agreed that they reflected more frequently and with better quality when they knew they were going to be observed. These same participants also reported that observing their partner increased the quality of their reflection and that the feedback they received about their teaching was helpful. These participants also noted that they changed teaching practices based upon the feedback they received from their partner and indicated that they thought the peer review model was a good way to promote reflective practices within the teacher preparation program. Participant Five disagreed or strongly disagreed that the peer review process had any benefits, and unlike all other participants, on question six, disagreed that peer review (in the implemented format) would be a

good practice for the department.

Figure 3. Follow Up Survey Results: Faculty Perceptions After Engagement in Peer Review

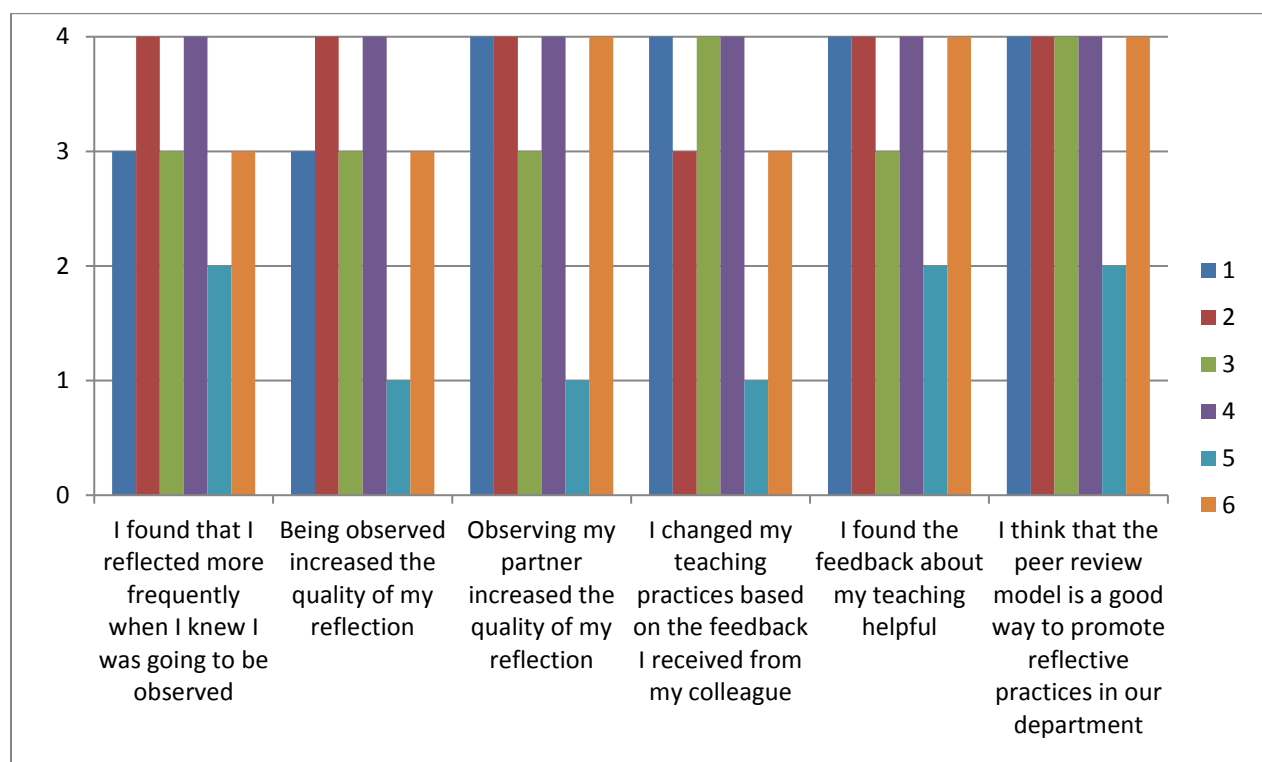


Figure 3. The follow-up survey results show faculty perceptions of reflection, feedback and instructional practice after engaging in peer review. Participants rated their perceptions on a four point Likert scale with four meaning strongly agree, three meaning agree, two meaning disagree and one meaning strongly disagree.

The follow-up survey data demonstrates that the majority of faculty found the peer review process worthwhile as they indicated increased reflection, positive outcomes from both observing and being observed and readily identified instructional changes made based on their engagement in the process. Participant Four and Five demonstrated dramatic changes in their perceptions of peer review. Their perceptions were totally different from the initial and follow up surveys and their responses completely diverged from one another. In the initial survey participant four disagreed in all areas while on the follow-up survey provided ratings of four, strongly agree, in all areas. This finding demonstrates a transformation and evolution of thinking

with regard to reflection and teaching practice with the implementation of the peer review. In contrast, Participant Five strongly agreed in all areas on the initial survey and gave ratings of disagree and strongly disagree in all areas of the follow-up survey. Additional research may be warranted that provides a deeper look into the variables that may have led to the dramatically different ratings for those two participants.

Connections of Findings to Theoretical Underpinnings

In his work on the constructivist theory, Bruner (1996) noted that learning is an active process and purported that learners construct new ideas and understandings based on current and background knowledge. Bruner encouraged teachers and learners to engage in Socratic learning where active dialogue was at the forefront. This faculty peer review process supported the professional dialogue Bruner describes as peer review pairs met to discuss their observations, insights, and suggestions about teaching and learning. The work of Danielson (2007) further supports the importance of meaningful conversations among colleagues about effective teaching practice. Danielson's framework was designed specifically to provide a structured, shared understanding of teaching practices and to elicit professional conversations about pedagogical improvement. In the interviews, participants continually noted that the conversations with their peers proved insightful and were a welcome opportunity to both get to know one another better and to engage in meaningful talk about teaching. The constructivist theory of Bruner and the evaluation framework of Danielson support the construction of new learning garnered through the active conversation that was present in this study.

Ernest Boyer (1990) proposed the scholarship of teaching model that argued that teaching should be an integral part of the scholarly and academic work of the teaching faculty in higher education institutions. He noted that while scholarship does entail engaging in original research,

it also means stepping back from the work to look for connections between theory and practice and effectively communicating one's knowledge to students through high quality teaching.

This peer review model served to support both the scholarship of teaching of higher education faculty in a teacher preparation program and the principles of the adult learning theory (Andragogy) proposed by Knowles (1976). In his work on the adult learning theory, Knowles (1976) suggested four principles of andragogy that align closely with this study. These principles include the desire that adults possess to be actively involved in the planning and evaluation of instruction, the notion that making mistakes provides a basis for their learning, the fact that adults are most interested in learning things that have direct relevance to their personal and professional lives, and engaging in learning that is problem- rather than content-centered. Participants' positive perceptions of the implementation of the peer review and their desire to continue the process in some form is evidence of the positive power of the process and its direct relevance to participant's professional teaching lives.

Through analysis of the data, it was continually noted by participants that observing others was integral to this process and provided rich insight about teaching practices. Positive outcomes reported by participants relative to the observation of others included the gaining of new insights and ideas, the ability to learn by watching others, and increased reflection. Bandura's (1989) Social Learning Theory emphasized that individuals learn from one another through such activities as observation, imitation and modeling. This emphasis was substantiated by the observation of teaching that was an integral component to this study and that repeatedly elicited positive comments from participants.

The data revealed from this study suggested strong connections between the theoretical foundations of the study and the evidenced outcomes. Participants' positive perceptions of

engaging in active professional dialogue, of observing others, and the direct relevancy to their professional lives were foundationally underpinned by the identified theories.

Summary

Research has repeatedly shown that reflective teaching is important in strengthening both teaching and learning (Danielson, 2007; Lowenstein & Brill, 2010; Williams & Power, 2009).

As teachers reflect on practice, they are better able to direct their own professional development and make changes to improve the quality of their teaching. This study served to establish baseline data regarding the quality of reflection of faculty and the instructional practices that were currently in place within the teacher preparation program. Based on the established research demonstrating that peer review is an effective way to aid teachers in reflection and collaboration, this action research case study examined peer review as an avenue to improve teaching practice in a teacher preparation program. Driven by Danielson's (2007) framework for evaluation of teaching that emphasizes the importance of meaningful conversations among colleagues about effective teaching practice, this study examined current instructional strategies, informed a peer review system and examined incidents of change when faculty engage in formative and reciprocal peer review

Data from this study revealed that, prior to implementation of the peer review system, faculty utilized multiple instructional strategies in their daily teaching including inquiry, group work and discussion, flipped classroom techniques, student led activities, case studies, simulations, cooperative learning, modeling, apprentice model, direct instruction, simulation, peer review, questioning, and advanced graphic organizers, among others. The implementation of the peer review system was readily accepted by faculty who identified many positive outcomes to the process. Among these positive outcomes were gaining new insights and ideas,

learning by watching others, and reflecting on teaching. Being able to spend extended time with a colleague and observing and engaging in conversation about teaching and learning were additional positive outcomes. While one of the six participants did not report making nor was observed making changes to instructional practices based on the experience, other participants implemented new strategies such as the use of a timer and agenda to maintain student engagement, the sharing of learning standards and targets, improved questioning techniques, and an increase in student leadership opportunities. It should be noted that few of the identified changes that were made after the peer review aligned with those that participants identified as wanting to change before engaging in the peer review.

While participants' perceptions of the peer review were overwhelmingly positive, several suggestions were made for improvement to the process. These included making the process more informal and frequent, increasing the number of observers for each person from one to two, self-selecting observation partners, eliminating written observation reports, and extending the process over a period of several months.

It was evident through analysis of the baseline and follow up surveys and the interview transcripts that the faculty members in the teacher preparation program found the peer review process valuable and worth continuing as a method to promote reflective practices within the department. Feedback and insight from participants provided suggestions for future implementation. Chapter Five further discusses the themes that emerged from this action research case study and provides recommendations for future practice and research.

CHAPTER 5

CONCLUSION

The purpose of this action research case study was to implement a peer review system in a teacher preparation program within a small private university and analyze incidents of change in teaching. This action research study was aimed at examining formative peer review as an avenue to improve teaching instruction among faculty within the teacher preparation program with the ultimate aim of investigating participant perception of a peer review process and identifying the teaching practices that were improved and/or implemented based on engagement in peer review.

Interpretation of Findings

The research questions that framed this research on faculty peer review in teacher preparation included:

1. Given the evident success of peer review in other settings, what impact will peer review have on post-secondary teachers in a Teacher Preparation Program?
2. What does the baseline data say about current pedagogical practice?
3. What impact does peer review have on post-secondary teachers in a teacher preparation program?
4. Which practices have been improved and what new practices have been implemented based on the peer review process?

This section will examine each of the identified research questions, presenting conclusions based on the findings outlined in Chapter Four.

Research Question 1: Given the evident success of peer review in other settings, what impact will peer review have on post-secondary teachers in a Teacher Preparation Program?

Based on information gained from this study, it is clear that peer review in a teacher preparation program is a valuable practice. Many positive outcomes were identified including increased camaraderie, gaining new insights and ideas, learning by watching others, and increased reflection on teaching. Being able to spend extended time with a colleague observing and engaging in conversation about teaching and learning were additional positive outcomes. These positive outcomes are similar to those identified in the literature regarding peer review in higher education. The identified benefits prevalent in the literature that were also identified in this study within a teacher preparation program include increased knowledge and skills, sharing of practice, increased awareness of the practices of others, social professional benefits, the sharing of best practices, exposure to new practices, revelation of new ideas and a strong sense of collegiality (Byrne et al., 2010; O’Keefe, Lecouteur, Miller, & McGowan, 2009; Toth & McKey, 2010). Studies in other academic disciplines also addressed the power of learning vicariously as the observers watching the instructional practices of their peers. This vicarious learning was repeatedly reported as a positive outcome through the interviews in this study.

Research Question 2: What does the baseline data say about current pedagogical practice?

The baseline survey data revealed that faculty engaged in a variety of pedagogical practices. Among these were the use of inquiry, group work and discussion, flipped classroom techniques, student led activities, case studies, simulations, cooperative learning, modeling, apprentice model, direct instruction, simulation, peer review, questioning, advance organizers,

project based learning, nonlinguistic representations, summarizing and note taking, setting objectives, and identifying similarities and differences. While not all faculty engaged in all of these practices, the employment of a variety of instructional strategies and practices was evident.

Research Question 3: What impact does peer review have on post-secondary teachers in a teacher preparation program?

It was evident through triangulation of the data that the implementation of the peer review process had a significant positive impact on the teaching of post-secondary teachers in a teacher preparation program. The positive outcomes identified included increased camaraderie, the gaining new insights and ideas from colleagues, learning by watching others, and increased reflection on teaching.

Research Question 4: What practices have been improved and what new practices have been implemented based on the peer review process?

Based on information gained from the follow-up surveys, participants identified the following areas of improvement with regard to their individual teaching practices: time management, the use of objectives and learning standards, the establishment of clear learning outcomes, and improved questioning and discourse techniques. Only one of the six participants noted that she neither made changes nor additions to her classroom practice as a result of the peer review process.

Implications

The positive outcomes that were revealed through the analysis of the collected data suggests that peer review is effective across many disciplines of higher education. The research outlined in Chapter Two of this study revealed similar positive outcomes across multiple academic disciplines similar to those identified in this study. Keefe, Lecouteur, Miller, and

McGowan's (2009) study found that faculty in health sciences programs reported increased confidence in teaching, confirmation of effective pedagogical practices, and feelings of institutional support and collegiality through the use of peer review. Similar outcomes were evident in the studies of Siddiqui, Jonas-Dwyer and Carr (2007) and McLeod et al. (2013) in medical education. These authors found that peer observation of teaching provides rich, qualitative evidence and specific individualized feedback for teachers. In both studies, the authors found that, when conducted in mutually supported ways, peer review can create reflective change and growth for teaching faculty. Toth and McKey's (2010) examination of peer review with nursing faculty and Marshall's (2004) work with peer review in the theology and religion discipline further support the effectiveness of peer review across multiple academic disciplines. This research study of peer review relative to teacher preparation programs further supports the outcomes from existing research and expands these positive outcomes across the discipline of teacher preparation in higher education.

Recommendations for Action

Based on analysis of the data including responses from the pre- and post-implementation surveys as well as insights and perceptions shared through interviews of the participants, the following are recommendations for action: increasing the informality of the process, increasing the frequency and number of peer observations, and sharing this work across other academic disciplines.

Increasing Informality

Increasing the informality of the process by alleviating the structured protocol (Appendix G) has the potential to further increase the positive outcomes of peer review. Eliminating the written observation report may lead to less stress among faculty who are concerned with the

quality of their written report. An emphasis on collegial conversation and dialogue about teaching practices should be the hallmark of the reciprocal observations. Having faculty self-select peers may also increase comfort level of those being observed, which could potentially add depth to the follow-up conversations.

Increase Number and Frequency of Observations

Given that the instructional changes noted during this survey appeared mostly superficial in nature, an increase in the number and frequency of peer observation visits may lead to more significant instructional changes and instructional changes of greater depth. While participants articulated several instructional changes that they would like to improve or change, their responses in the post implementation survey revealed that few of these practices have yet changed. These are changes that may occur over time in the coming semesters. Increasing the number and frequency of observations would provide a greater context for the observer to provide more feedback on the teaching practices and offer a greater opportunity for depth in the conversations about teaching. This is supported by the work of Danielson (2007) who encourages professional conversations about pedagogical improvement.

Share This Work with Teachers in Other Academic Disciplines

In their post implementation interviews, two participants noted that colleagues in other academic disciplines on campus expressed an interest in this peer review process. Sharing the findings of this research and encouraging implementation across the university could lead to a greater scope of collegial conversation about teaching practice. This recommendation is supported by the Constructivist and Social Cognitive learning theories and the Adult Learning theory (andragogy) that underpin this research. These theories support the notion that teaching and learning are active, social processes, and to improve their classroom practices, teachers must

actively reflect on their teaching. Given this information and the positive outcomes revealed through this study, if faculty in all disciplines work to actively construct their own understandings of teaching and learning, instructional practice and student achievement will undoubtedly be improved.

Recommendations for Further Study

In an effort to increase the depth and breadth of this work on peer review in teacher preparation, a longitudinal study should be conducted to measure progress and change over time of instructional practice and teacher reflection. A study over an extended period of time will provide additional information and data to either support or refute the findings outlined in this study. This research could start with study over an academic year that includes quarterly peer observations and extend to several academic years to determine the types of instructional changes that are made. In addition to a study that extends the length of the peer review, another study that analyzes the impact of dispositions and analyzes how variables such as number of years taught, terminal degree status, and professional hierarchy impact outcomes and participant perceptions of the peer review model has the potential for rich data.

Engaging in an interdisciplinary study will extend this work beyond the confines of teacher preparation as faculty members experience teaching practices outside of their discipline. Interdisciplinary peer review would aid faculty in seeing how instructional strategies are implemented across a variety of academic content areas.

Given participant sentiments that relationships were a very important part of the peer review process, further research on how to establish an organizational culture supportive of peer review is warranted. Establishing a trusting culture for peer review will further support the formative nature of the peer review discussed in this study.

Conclusion

The positive outcomes of the implementation of peer review in teacher preparation were evident through review of all bodies of data within this research study. This study revealed that observing colleagues and being observed by colleagues increased awareness of teaching practice, increase camaraderie among faculty, provided insight into new instructional practices and led to some minor changes in instruction. In addition to affirming the positive effects of the peer review, potential changes and improvements were readily noted by all participants. The overwhelming sense was that this practice has merit and is a valuable way to promote collegial conversation about teaching and improvements in personal reflection. While the outcomes identified in this study are supported by years of established research in other disciplines, additional research that examines the effectiveness of peer review in teacher preparation programs over time will be necessary to corroborate the findings of this study.

REFERENCES

- Alexander, R. (2008). *Essays on pedagogy*. New York, New York: Routledge.
- Atkinson, D. J., & Bolt, S. (2010). Using teaching observations to reflect upon and improve teaching practice in higher education. *Journal of the Scholarship of Teaching and Learning*, 10(3), 1-19. Retrieved from <http://files.eric.ed.gov/fulltext/EJ906466.pdf>
- Bandura, A. (1989). Social cognitive theory. *Annals of Child Development*, 6, 1-60.
- Benedict, A., Thomas, R., Kimerling, J & Lesko, C. (2013). Trends in teacher evaluation. *Teaching Exceptional Children*, 45(5), 60-68.
<https://doi.org/10.1177/004005991304500507>
- Bell, A. (2002). Peer observation of teaching in Australia. Retrieved from http://learningandteaching.vu.edu.au/teaching_practice/improve_my_teaching/evaluation_support_for_my_teaching/Resources/id28_Peer_Observation_of_Teaching_in_Australia.pdf
- Bell, A. & Mladenovic, R. (2008). The benefits of peer observation of teaching for tutor development. *Higher Education*. 55, 735-752. <https://doi.org/10.1007/s10734-007-9093-1>
- Bloomberg, L. & Volpe, M. (2012). *Completing your qualitative dissertation: A road map from beginning to end*. Thousand Oaks, CA: Sage.
- Bouwma-Gearhart, J. (2012). Science faculty improving teaching practice: Identifying needs and finding meaningful professional development. *International Journal of Teaching and Learning in Higher Education*, 24,(2), 180-188.
- Boyer, E. (1990). *Scholarship reconsidered*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

- Brix, J, Grainger, P., & Hill, A. (2014). Investigating mandatory peer review of teaching in schools. *Australian Journal of Teacher Education*, 39(4), 83-99.
<https://doi.org/10.14221/ajte.2014v39n4.3>
- Bruner, J. (1996). *The culture of education*. Cambridge, MA: Harvard University Press.
- Buchanan, M. (2001). Peer reviewing preservice teachers of christian higher education. *Christian Higher Education*. 10, 464-481. <http://dx.doi.org/10.1080/15363759.2010.515455>
- Burrows, T., Findlay, N., Killan, C., Dempsey, S., & Hunter, S. (2011). Using nominal group technique to develop a consensus derived model for peer review of teaching across multi-school faculty. *Journal of Teaching and Learning Practices*, 8(2), 1-9.
- Byrne, J., Brown, H., & Challen, D. (2010). Peer development as an alternate to peer observation: A tool to enhance professional development. *International Journal for Academic Development*, 15(3), 215-258. <https://doi.org/10.1080/1360144x.2010.497685>
- Chester, A. (2012). Peer partnerships in teaching: Evaluation of a voluntary model of professional development in tertiary education. *Journal of the Scholarship of Teaching and Learning*, 12(2), 94-108.
- Chism, N. (2007). *Peer review of teaching*. San Francisco, CA: Jossey-Bass.
- Cisneros-Cohernour, E. (2013). Challenges when using a standardized approach for assessing the quality of college teaching. *Research on Quality of Higher Education*. Retrieved from <http://dx.doi.org/10.7720/1822-1645.10.4>
- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson.
- Danielson, C. (2007). *Enhancing professional practice: A framework for teaching*. Alexandria, Virginia: Association for Curriculum and Development.

- Daniels, E., Pirayoff, R., & Bessant, S. (2013). Using peer observation and collaboration to improve teaching practices. *Universal Journal of Educational Research*, 1(3), 268, 277.
<http://www.hrpub.org> DOI: 10.13189/ujer.2013.010318
- Deering, T. (2011). How should we evaluate student teachers? *Critical Questions in Education*, 2(2), 66-73. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1047572.pdf>
- Desjardins, F. J. (2010, July 19). Theoretical framework [Video file]. Retrieved from <https://www.youtube.com/watch?v=EcnufgQzMjc&feature=youtu.be>
- DiVall, M. P., Barr, J. M. S., Gonyeau, M. P., Matthews, S. J. P., Van Amburgh, J. P., Qualters, D. P., & Trujillo, J. P. (2012). Follow-up assessment of a faculty peer observation and evaluation program. *American Journal of Pharmaceutical Education*, 76(4), 1-61.
<https://doi.org/10.5688/ajpe76461>
- Donnelly, R. (2007). Perceived impact of peer observation of teaching in higher education. *International Journal of Teaching and Learning in Higher Education*. 19(2), 117-129.
Retrieved from <http://files.eric.ed.gov/fulltext/EJ901290.pdf>
- Drew, S. & Klopper, C. (2014). Evaluating faculty pedagogical practices to inform strategic academic professional development: A case of cases. *Higher Education*, 67, 349-367.
<https://doi.org/10.1007/s10734-013-9657-1>
- Eggleston, T. & Smith, G. (2015). Using a scholarship of teaching model to enhance your teaching. Retrieved from http://psychologicalscience.org/teaching/tips_0903.cfm
- Fletcher, R., Meyer, L., Anderson, H. Johnston, P., & Rees, M. (2012). Faculty and students conceptions of assessment in higher education. *Higher Education*, 64, 119-133.
<https://doi.org/10.1007/s10734-011-9484-1>

- Galbraith, C. & Merrill, G. (2012). Predicting student achievement in university-level business and economic classes: Peer observation of a classroom instruction and student ratings of teaching effectiveness. *College Teaching*. 60, 48-55.
<https://doi.org/10.1080/87567555.2011.627896>
- Gearhart-Bouwma, J. (2012). Science faculty improving teaching practice: Identifying needs and finding meaningful professional development. *International Journal of Teaching and Learning in Higher Education*. 24(2), 180-188. Retrieved from
<http://files.eric.ed.gov/fulltext/EJ901290.pdf>
- Goubeaud, K. & Yan, W. (2004). Teacher educators' teaching methods, assessments and grading: A comparison of higher education faculty's instructional practices. *Teacher Educator*, 40(1), 1-16. <https://doi.org/10.1080/08878730409555348>
- Hammersley-Fletcher, L., & Orsmond, P. (2004). Evaluating our peers: Is peer observation a meaningful process? *Studies in Higher Education*, 29(4), 489-503. DOI: 10.1080/10307507042000236380
- Hattie, J. (2011). *Visible learning for teachers: Maximizing impact on learning*. New York, NY: Routledge.
- Henard, F & Roseveare, D. (2012). Fostering quality teaching in higher education: Policies and practices an IMHE guide for higher education institutions. Retrieved from
<http://www.oecd.org/edu/imhe/QT%20policies%20and%20practices.pdf>
- Hendry, G. & Oliver, G. (2012). Seeing is believing: The benefits of peer observation. *Journal of Teaching and Learning Practice*. 9(1), 1-8. Retrieved from
<http://ro.uow.edu.au/jutlp/vol9/iss1/7/>

- Hightower, M. W. (2012, February 11). Conceptual framework, part 3 [Video file]. Retrieved from <https://www.youtube.com/watch?v=guUdGZWgKdw&feature=youtu.be>
- Hobson, L. Harris, D. Buckner-Manley, K., & Smith, P. (2012). The importance of mentoring novice and pre-service teachers: Findings from a hbcu student teaching program. *Educational Foundations, Summer-Fall*, 67-80. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1000231.pdf>
- Hyacinth, T. & Mann, S. (2014). Reflective practice in Nigeria: Teachers voices and experiences. *The Electronic Journal for English as a second language*. 18 (3), 1-26. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1048633.pdf>
- Iqbal, I. A.(2014). Don't tell it like it is: Preserving collegiality in the summative peer review of teaching. *Canadian Journal of Higher Education*, 44 (1), 108-124. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1028765.pdf>
- Izadinia, Mahsa. (2012). Teacher educators as role models: A qualitative examination of student teachers' and teacher educators' views towards their roles. *The Qualitative Report*. 17(47), 1-15. Retrieved from <http://files.eric.ed.gov/fulltext/EJ981479.pdf>
- Katitia, D. & Ole, M. (2015). Teacher education preparation program for the 21st century: Which way forward for Kenya? *Journal of Education and Practice*, 6(24), 57-63. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1078823.pdf>
- Kelchner, L. (2014). Minimum qualifications to become a professor. Retrieved from <http://work.chron.com/minimum-qualifications-become-professor-1416.html>
- Kenny, A., Mitchell, E, Chronin, D., Vaughan, E.. & Murtagh, E. (2014). In their shoes: Exploring a modified approach to peer observation of teaching in a university setting. *Innovations in Education and Teaching International*, 51(2), 218-229. <https://doi.org/10.1080/14703297.2013.771971>

- Knowles (1988). *The modern practice of adult education: From pedagogy to andragogy*. Boston, MA: Cambridge Book Co.
- Kohot, G., Burnap, C., & Yon, M. (2007). Peer observation of teaching: Perceptions of the observer and the observed. *College Teaching*, 55(1), 19-25.
<https://doi.org/10.3200/CTCH.55.1.19-25>
- Lowenstein, K. & Britt, A. (2010). A culture of thinking like a teacher: The role of critical reflection in Teacher preparation. Retrieved from
www.jnaac.com/index.php/JNAAC/article/download/23/11
- Mansell, R. (2013). Observing teaching practice: Assessing competence in the classroom. *College Quarterly*, 16(4). Retrieved from <http://files.eric.ed.gov/fulltext/EJ1020592.pdf>
- Marshall, B. (2004). Learning from the academy: From peer observation of teaching to peer enhancement of learning and teaching. *The Journal of Adult Theological Education*, 1(2), 185-204. <https://doi.org/10.1558/jate.1.2.185.65573>
- McLeod, P., Steinert, Y., Capek, R., Chalk, C., Brawer, J., Ruhe, V., & Barnett, B. (2013). Peer review: An effective approach to cultivating lecturing virtuosity. *Medical Teacher*, 35(4), 1046-1051. doi: 10.3109/0142159X.2012.733460
- Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning theory.
<https://doi.org/10.1002/ace.3>
- Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, CA: Jossey Bass.
- Meyer, S., Broderson, R., & Linick, M (2014). Approaches to evaluating Teacher preparation programs in seven states. Retrieved from <http://files.eric.ed.gov/fulltext/ED550491.pdf>

- O'Keefe, M., Lecouteur, A., Miller, J., & McGowan, U. (2009). The colleague development program: A multidisciplinary program of peer observation partnerships. *Medical Teacher, 31*, 1060-1065. <https://doi.org/10.3109/01421590903154424>
- Orlich, D., Harder, R., Callahan, R., Trevisan, M., Brown, A., & Miller, D (2013). *Teaching strategies: A guide to effective instruction*. Belmont, CA: Wadsworth Cengage Learning.
- Ravitch, S. M. & Riggan, M. (2012). *Reason & rigor: How conceptual frameworks guide research*. Thousand Oaks, California: Sage Publications.
- Reciprocal observation of teaching. Retrieved from <https://cesd-learning-services-1st.wikispaces.com/file/view/Reciprocal+Observation+of+Teaching+handbook.pdf>
- Riel, M. (2016). Understanding action research. Center for collaborative action research. Retrieved from <http://cadres.pepperdine.edu/ccar/define.html>
- Roberts, T., & Shambrook, J. (2012). Academic excellence: A commentary and reflections on the inherent value of peer review. *Journal of Research Administration, 43*(1), 33-40. Retrieved from <http://files.eric.ed.gov/fulltext/EJ976740.pdf>
- Rockoff, J. (2003). The impact of individual teachers on student achievement: Evidence from panel data. Retrieved from <http://files.eric.ed.gov/fulltext/ED475274.pdf>
- Sartain, L., Stoelinga, S., & Brown, E. (2011). Rethinking teacher evaluation in Chicago: Lessons learned from classroom observations, principal-teacher conferences and district implementation. Retrieved from <https://consortium.uchicago.edu/sites/default/files/publications/Teacher%20Eval%20Report%20FINAL.pdf>
- Siddiqui, Z., Dwyer, J., & Carr, S. (2007). Twelve tips for peer observation of teaching. *Medical Teacher, 29*, 297-300. <https://doi.org/10.1080/01421590701291451>

- Toth, K. E., & McKey, C. A. (2010). Differences in faculty development needs: Implications for educational peer review program design. *Canadian Journal of Higher Education*, 40(1), 53-69. Retrieved from <http://files.eric.ed.gov/fulltext/EJ904270.pdf>
- Trujillo, J., Divall, M., Barr, J., Gonyeau, M., Van Amburgh, J., Matthews, S., & Qualters, D. (2009). Development of a peer teaching-assessment program and a peer observation and evaluation tool. *American Journal of Pharmaceutical Education*, 72(6), 1-9. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2661155/>
- Unluer, S. (2012). Being an insider researcher while conducting case study research. *The qualitative report*, 17(58), 1-14. Retrieved from <http://nsuworks.nova.edu/tqr/vol17/iss29/2/>
- Viviano, T. (2012). Charlotte Danielson or national board certification: A comparison and contrasting of two major national frameworks for teaching. *Journal of career and technical education*, 27(2), 114-119. <https://doi.org/10.21061/jcte.v27i2.563>
- Webb, A., Wong, T., & Hubball, H. (2013). Professional development for adjunct teaching faculty in a research intensive university: Engagement in scholarly approaches to teaching and learning. *International Journal of Teaching and Learning in Higher Education*, 25(2), 231-238. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1016541.pdf>
- Weller, S. (2009). What does peer mean in teaching observation for the professional development of higher education lecturers? *International Journal of Teaching and Learning in Higher Education* 21(1), 25-35. Retrieved from <http://files.eric.ed.gov/fulltext/EJ896239.pdf>

Wen, S, Xu, J, Carline, D, Zhong, F, Zhong, F., & Shen, S. Effects of a teaching evaluation system: A case study. *International Journal of Medical Education*, 2(18), 18-23.

<https://doi.org/10.5116/ijme.4d66.910e>

White, K. , Boehm, E., & Chester, A. (2014). Predicting academics' willingness to participate in peer review of teaching: A quantitative investigation. *Higher education research and development*, 33 (2), 372-285. <https://doi.org/10.1080/07294360.2013.832162>

Wiggins, G. (2012). Seven keys to effective feedback. *Educational Leadership*, 79 (1), 10-16.

Retrieved from <http://www.ascd.org/publications/educational->

[leadership/sept12/vol70/num01/Seven-Keys-to-Effective-Feedback.aspx](http://www.ascd.org/publications/educational-leadership/sept12/vol70/num01/Seven-Keys-to-Effective-Feedback.aspx)

Williams, J. & Power, K. (2009). Using core reflection in teacher education. Retrieved from

<http://atea.edu.au/ConfPapers/2009/Refereed/Williams&Power.pdf>

Appendix A

Survey I.

Baseline Data

For each of the statements below circle the response that best characterizes how you feel.

1 Strongly Disagree

2 Disagree

3 Agree

4 Strongly Agree

I often reflect on my teaching. 1 2 3 4

I would rate the quality of my reflection as high. 1 2 3 4

I welcome feedback from others about my teaching. 1 2 3 4

I am interested in engaging in an observation of my colleague's teaching through a formative peer review model. 1 2 3 4

I am interested in having a colleague observe my teaching through a formative peer review model. 1 2 3 4

- What instructional strategies do you typically employ in your classroom?

- What instructional strategies would you like to improve and/or change?

Appendix B
Instructional Rubric
Danielson (2007)

DOMAIN 3: INSTRUCTION				
Component 3c: Engaging Students in Learning				
Elements: Activities and assignments • Grouping of students • Instructional materials and resources • Structure and pacing				
ELEMENT	LEVEL OF PERFORMANCE			
	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
Activities and assignments	Activities and assignments are inappropriate for students' age or background. Students are not mentally engaged in them.	Activities and assignments are appropriate to some students and engage them mentally, but others are not engaged.	Most activities and assignments are appropriate to students, and almost all students are cognitively engaged in exploring content.	All students are cognitively engaged in the activities and assignments in their exploration of content. Students initiate or adapt activities and projects to enhance their understanding.
Grouping of students	Instructional groups are inappropriate to the students or to the instructional outcomes.	Instructional groups are only partially appropriate to the students or only moderately successful in advancing the instructional outcomes of the lesson.	Instructional groups are productive and fully appropriate to the students or to the instructional purposes of the lesson.	Instructional groups are productive and fully appropriate to the students or to the instructional purposes of the lesson. Students take the initiative to influence the formation or adjustment of instructional groups.
Instructional materials and resources	Instructional materials and resources are unsuitable to the instructional purposes or do not engage students mentally.	Instructional materials and resources are only partially suitable to the instructional purposes, or students are only partially mentally engaged with them.	Instructional materials and resources are suitable to the instructional purposes and engage students mentally.	Instructional materials and resources are suitable to the instructional purposes and engage students mentally. Students initiate the choice, adaptation, or creation of materials to enhance their learning.
Structure and pacing	The lesson has no clearly defined structure, or the pace of the lesson is too slow or rushed, or both.	The lesson has a recognizable structure, although it is not uniformly maintained throughout the lesson. Pacing of the lesson is inconsistent.	The lesson has a clearly defined structure around which the activities are organized. Pacing of the lesson is generally appropriate.	The lesson's structure is highly coherent, allowing for reflection and closure. Pacing of the lesson is appropriate for all students.

Appendix C
Survey 2
Follow Up Survey

For each of the statements below circle the response that best characterizes how you feel.

1 Strongly Disagree

2 Disagree

3 Agree

4 Strongly Agree

I found that I reflected more frequently when I knew I was going to be observed. 1 2 3 4

Being observed increased the quality of my reflection. 1 2 3 4

Observing my partner increased the quality of my reflection. 1 2 3 4

I changed my teaching practices based on the feedback I received from my colleagues. 1 2 3 4

I found the feedback about my teaching helpful. 1 2 3 4

I think that the peer review model is a good way to promote reflective practices in our department. 1 2 3

- As a result of the peer review process, what changes have you made or do you intend to make to the instructional strategies you employ in your classroom?
- What current practices were improved and/or what new practices were implemented based on feedback received in the peer review process?

Appendix D
Peer Observation Report

Faculty Member:

Observer

Date:

Subject:

Lesson Overview:

1. **Lesson Introduction:**

2. **Classroom Management Impacting Student Learning:**

3. **Presentation of Instruction/Teaching Strategies:**

4. **Evidence of Teacher Planning/Objectives related to Student Learning:**

5. **Knowledge of Content/Curriculum:**

6. **Assessment:**

7. **Lesson Summarization/Closure:**

8. Accommodations:

9. Reflection on Teaching by Student:

10. Questions:

11. Commendations:

12. Recommendations:

Observer's Signature: _____

Faculty Signature: _____

Appendix E
Consent Form

Dear Participant,

Please read this form, you may also request that this form is read to you. The purpose of this form is to provide you with information about this research study, and if you choose to participate, document your decision. You are encouraged to ask any questions that you may have about this study now, during or after the project is complete. You can take as much time as you need to decide whether or not you want to participate. Your participation is voluntary and you may withdraw at any time without affecting your relationship with the researcher or the institution.

The purpose of this study is to gather information on teaching practices before and after the implementation of a peer review system. You have been chosen to participate in this study as you are a teaching faculty member within the teacher preparation program at this institution. There will be seven participants in this study.

For the purposes of this study you will be asked to answer questions on an online survey at the onset of the study. You will then be asked to engage in teaching observations with a partnering faculty member which will be chosen at random. You will be both observed and serve as the observer during this phase of the study. Your observations will be recorded using the instructional rubric of Danielson (2007) and accompanied with narrative feedback on the provided observation form. You will notice that this narrative observation form mirrors the one that we use when observing our student teachers. Upon completion of the observations, you will be asked to meet with your peer review partner to share feedback and conversation. Once the observations are complete, I will hold interviews aimed at documenting your perceptions of the process and instructional changes that you have made or plan to make based on your engagement in the peer review process. An online follow up survey will be conducted following the interviews.

Your name will not be associated with the research findings in any way. In order to protect the rights of the participants, all identifying information will be removed from surveys and interviews to ensure confidentiality. Confidentiality will be achieved by keeping all information on a password protected hard drive and in locked files in the researcher's office. The information provided by one individual will not be shared with others and findings will be presented in ways that ensure individuals cannot be identified.

There are no known risks and/or discomforts associated with this study. It is anticipated that this study will pose no risks to its participants. The potential benefit of this study is improvements in teaching practices. It is anticipated that the benefits of this study to faculty and students far outweighs the minimal risks associated with this study.

Please sign your consent with full knowledge of the nature and purpose of the procedures. A copy of this consent form will be given to you to keep.

Date:

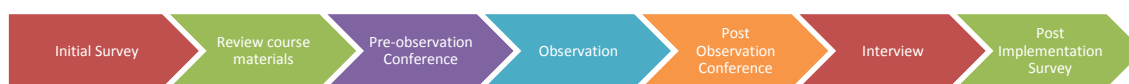
Signature of Participant

Shelly Tennett, M.Ed, University of New England, Principal Investigator

Appendix F
Interview Questions

- What are your overall thoughts about engaging as **the observer** in the peer review process?
- What are your overall thoughts about **being observed** by your peer review partner?
- Did engaging in this process impact your teaching? How so?
- What impact did **observing others** teach have on your own teaching?
- What specific changes have you made or do you plan to make based on the feedback you gave and received during the peer review process?
- What changes would you make to this process?
- What others thoughts and insight would you like to share?

Appendix G



Peer Review/Peer Observation Protocol

PROTOCOL

The purpose of peer observation is to obtain feedback about our teaching. This is an **optional** opportunity developed to promote conversation and reflection about high quality teaching practice.

Principles of Peer Observation:

- It is a developmental, rather than judgmental process.
- The observed teacher determines the area(s) of focus.
- Information collected is done as a formative process not an evaluative process.

Formative Observation of Teaching	Teacher Evaluation
Give and take	One way learning
Non-threatening	May be threatening
Improvement oriented	Judgment is made
Data given to teacher for reflection	Data is used to judge effectiveness
Formative for personal growth	Summative, often for contractual purposes

Reciprocal observation of teaching (2013)

The Peer Review Process

- **Completion of baseline survey**
- **Review course materials:** This gives the observer the opportunity to become familiar with the goals of the course. The teacher to be observed may choose to provide the observer with materials such as course syllabi, agendas, sample presentations or lesson plans so that they are able to develop an understanding of the course goals and outcomes.
- **Pre-observation conference:** This meeting may be done in person or via email communication and serves several purposes, the first of which is to engage in collegial dialogue about the process. Next, an area of focus for the observation should be identified by the teacher to be observed. Some questions that the observer may ask during this meeting include:
 - How can I help you?
 - What are some goals you are working toward?
 - What specifically would you like feedback on?
- **Observation:** The observer will utilize the provided Danielson rubric and observation form to record data during the agreed upon class session.
- **Post Observation Conference:** During this time, formative data will be shared and conversation will be held about the observation. The written report will be submitted to the observed teacher in a timely manner.
- **Interview:** Shelly will conduct a semi-structured interview of about 45 minutes-1 hour on your experience.
- **Follow Up Survey:** A second follow up survey will be distributed via email.

Reference. *Reciprocal observation of teaching*. (2013). Retrieved from <https://cesd-learning-services-1st.wikispaces.com/file/view/Reciprocal+Observation+of+Teaching+handbook.pdf>