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The Power of Feedback: An Indicator of Mentor Effectiveness during Student Teaching

Dara Michelle Hall

A dissertation submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

Partial Fulfillment of the Requirements

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Doctor of Philosophy

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Dedication

This dissertation is dedicated to the hard work of the MidValley Consortium. The committee members and facilitators have changed many times throughout the years, but the consortium's goal to provide a cadre of clinical faculty who are exemplary models of effective teaching and strong mentors for their student teachers has remained steadfast. It is an honor to be a part of this effort!

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Abstract

Mentorship programs have become increasingly prevalent in multiple organizations, particularly due to a large number of positive outcomes for the mentees such as improved performance, attitudes, and retention (e.g. Eby et al., 2013). Likewise, research suggests that there are potential benefits of training mentors to work with student teachers, leading many teacher preparation programs to devote human and financial resources to develop trained mentor teachers, known as clinical faculty, to provide pre-service support. Findings have shown that student teachers feel most supported when given concrete and meaningful feedback to improve their instructional practices (Sayeski & Paulsen, 2012), therefore, clinical faculty training prepares mentor teachers to provide this feedback. The purpose of this study was to establish evidence of effective mentorship in trained clinical faculty. The study reviewed data over a three-year period of student teaching experiences to better understand indicators of effective mentorship, and 13 themes related to effective mentorship were established. Student teacher evaluations of their mentor teachers indicated more effective mentorship with clinical faculty than untrained mentor teachers, particularly with regards to feedback. It was hypothesized that trained mentors provide feedback more often and of higher quality than untrained mentor teachers. Feedback on assessments of student teachers was reviewed. Quality of feedback was scored by adapting Hattie and Timperley's (2007) model of feedback – self, task, process, and selfregulation, with the view that process and self-regulation feedback is the most effective feedback to improve practice. The hypotheses for higher quantity and quality were not supported; therefore, limitations of the current practices in training mentor teachers are discussed.

Chapter 1: Introduction

Mentoring is an important concept from a leadership perspective. Scholars and practitioners from different leadership ideologies indicate that effective leaders serve as mentors or use mentoring programs in organizations to develop their employees – such as found in transformational leadership (Scandura & Williams, 2004), servant leadership (Elkington, Meekins, Breen, & Martin, 2015; Stone, Russell & Patterson, 2004), and authentic leadership (Shapira-Lishchinsky & Levy-Gazenfrantz, 2015, 2016). These leadership philosophies are considered to be positive styles of leadership with many similar characteristics, such as positive morals and modeling (Avolio & Gardner, 2005). Leaders with these ideologies in both the public and private sector incorporate mentorship in development programs as a best practices approach to develop people for success in organizations (e.g. USOPM, 2008).

Mentorship programs have increased in a multitude of contexts according to interdisciplinary meta-analyses based primarily on the positive developmental and organizational benefits that have been associated with mentorship (Eby et al., 2008; Eby et al., 2013). In the field of education, specifically as it relates to PK-12 teacher preparation, there has been a growing focus on creating more effective mentorship programs during field experiences to help pre-service teachers become better prepared for the profession as they become familiar with complex, multifaceted teaching practices (Zeichner, 2010). Field experiences in teacher preparation programs help to develop practical knowledge by experiencing what it is like to teach through the guidance of mentor teachers who are seen as experts of practice (Butler & Cuenca, 2012). Pre-service teachers (a.k.a. student teachers) complete a student teaching experience with an assigned

mentor teacher, and have been found to be more effective when they have had strong mentor support from experienced teachers (Moffett & Davis, 2014).

Due to its perceived importance, mentorship has become a standard for teacher preparation accrediting agencies (e.g. CAEP, 2013; NCATE 2010), and has been used to target key areas of assessment for pre-service teacher training. This has led many teacher education programs to expend valuable human resources and financial resources to develop "clinical faculty" – mentor teachers who are trained through comprehensive programs to work with student teachers (Childre & Van Rie, 2015; Paulsen, DaFonte, & Barton-Arwood, 2015). Studies from clinical faculty training programs indicate that mentors develop a better understanding of pre-service preparation programs and expectations for the teacher candidates, and stronger relationships are built between the university faculty and teachers (Childre & Van Rie, 2015; Cornbleth & Ellsworth, 1994; Paulsen, DaFonte, & Barton-Arwood, 2015).

Extensive evidence in the field of mentorship in a wide variety of organizations indicates that mentoring makes a difference in terms of multiple positive outcomes, including performance, job satisfaction, and organizational commitment (e.g. Chun, Sosik & Yun, 2012; Eby, 2011), but there has been little empirical evidence in teacher preparation to show that clinical faculty, who are believed to optimize the pre-service learning experience (Childre & Van Rie, 2015) make any difference beyond a mentorship experience with an untrained mentor teacher. Despite the growing popularity of mentor teacher training programs designed to prepare student teachers for the next steps in their career, there has been an absence of evidence showing their effectiveness. Recent research found no differences in ratings on performance assessments for student teachers

mentored by clinical faculty compared with those mentored by untrained mentor teachers, thereby indicating that clinical faculty did not necessarily help to develop instructional skills that improved student teacher performance (Hall & Vanhove, under review). Despite this finding, a subjective performance measure could not realistically capture many of the benefits of training that a student teacher would be exposed to as a result of working with a clinical faculty mentor. A better approach would be to look at the specific outcomes expected from trained mentors as compared to untrained mentors, such as relationship building, high quality feedback, and reflective practices to determine if there are more effective mentoring practices taking place when student teachers work with a trained mentor. This can be evaluated looking at student teacher evaluations of their placements.

Research has shown that student teachers feel most supported by their mentor teacher when given concrete, meaningful, and multi-modal feedback to improve their instruction (Sayeski & Paulsen, 2012); therefore, in addition to any other effective mentoring practices, it is important to determine if clinical faculty are supporting student teachers with feedback. Hattie and Timperley (2007) suggest that feedback is a powerful tool to enhance learning if it is clear, purposeful, and meaningful. Mentor teachers have many opportunities to provide informal and formal feedback to their student teachers; and clinical faculty are encouraged to use feedback to help enhance student instruction through written observations and assessments (Killian & Wilkins, 2009). Based on their preparation to work with student teachers, it would make sense to expect that higher quality and more useful feedback would be provided by clinical faculty compared to untrained mentor teachers.

The purpose of this study is to contribute to the teacher preparation literature to find out if mentor training is effective, such that clinical faculty are more effective mentors than untrained mentor teachers, particularly in supporting student teachers with feedback. This will be accomplished by addressing the following overarching research questions:

- (1) Is mentor teacher training effective?
- (2) If trained mentors are more effective than untrained mentors, in what ways are they more effective?
- (3) If giving feedback is one of the most important behaviors for mentor teachers to practice, is there a difference in the feedback given to student teachers by trained mentors as compared to untrained mentors?

This practitioner-based study begins to answer important questions that will have considerable value to teacher preparation programs in institutions of higher education by helping to determine if they should train or continue to train mentor teachers, change the curriculum they currently use to train them, or if they should stop expending resources to train them if in fact no differences are found. While answers to these questions will be particularly relevant for teacher preparation programs, prior research on and implementation of mentor training is multidisciplinary and can contribute to a greater understanding of the role of training in mentorship.

Chapter 2: Literature Review

Teacher preparation programs expend human and financial resources in training clinical faculty to mentor student teachers. Grants provide funding to support the development of programs to create or improve clinical faculty mentorship experiences; for example, the initial design of the clinical faculty workshop described in this research was developed through grant funding, and numerous follow up grants have been received related to clinical faculty mentorship. Despite these numerous resources expenditures, there is a lack of evidence that exists to show that clinical faculty mentorship is any better or more effective for student teachers than a placement with an untrained mentor teacher. Since the purpose of this research is to find evidence that training mentors to work with student teachers is beneficial to the student teaching experience, particularly as it relates to giving feedback, this literature review frames the current research related to the benefits of mentorship, effective mentors, mentor training programs, and the importance of feedback in mentorship.

Benefits of Mentorship

Successful transitioning into the work place during the first year of employment is highly affected by the strategies that employers provide to develop their new employees given that appropriate support can positively influence job satisfaction, performance, and commitment, as well as negatively influence turnover and stress (Holton, 2001).

Mentorship is one strategy considered a best-practices approach to developing new people in organizations (USOPM, 2008; Wanberg, Welsh & Hezlett, 2003). A widerange of positive outcomes related to behavior, attitude, health, relationships, learning and motivation have been associated with mentoring (Herrbach et al., 2011). "Mentoring

is a distinct phenomenon," (Eby, 2011, p. 506), differing from other relationships and interactions found in the workplace, because it results in benefits for the mentee, the mentor, and the organization.

A number of research in multidisciplinary studies have identified many of the reported benefits, including promotion and increased compensation, job satisfaction, and organizational commitment (Eby, Allen, Evans, Ng, & DuBois, 2008; Eby et al., 2013; Ghosh & Reio, 2013); as well as improved performance and retention (Chun et al., 2012; Greene & Puetzer, 2002; Herrbach, Mignonac, & Richebe, 2011). Mentors describe benefits such as personal growth and learning (Allen, Poteet, & Burroughs, 1997). Additionally, the mentor often "fosters a deeper sense of purpose and belonging" (Chun et al., 2012, p. 1088) which might account for increased organizational commitment, as well as developing into organizational leaders (Chun et al., 2012; Tonidandel, Avery, & McKensy, 2007).

Feiman-Nemser (2001) noted "mentoring has the potential to foster powerful teaching and to develop the dispositions and skills of continuous improvement" (p. 28). Positive outcomes for mentees include skill development, attitudinal benefits, and career-related outcomes such as lower turnover and increased socialization and integration into the organization (Eby et al., 2013). Other mentee benefits include job satisfaction, increased salaries, higher rates of promotion, more positive attitudes towards work and career, socialization of newcomers to the organization, motivation and performance (Chun, Sosik, & Nam, 2012; Eby, 2011; Eby et al., 2013; Herrbach, Mignonac, & Richebe, 2011). Moreover, long-term benefits to organizations include career advancement, retention, and strengthening the profession (Greene & Puetzer, 2002;

Ragins & Scandura 1999; Scandura, 1992). These outcomes are a result of a variety of important behaviors displayed by mentors, such as providing support, good collegiality, communication, and feedback (Nick et al., 2012).

Similarly, research in the teaching profession has found mentorship to be very beneficial for retention. Mentoring for beginning teachers is considered one of the most influential and cost-effective methods for induction into the profession (Sherrill, 2011). For example, beginning teachers who participate in mentorships with experienced teachers are less likely to change schools or leave teaching early on in their career (Rideout & Windle, 2010; Smith & Ingersoll, 2004). Ratings of school climate and overall satisfaction of induction are significantly higher for beginning teachers who have mentors (Carter & Francis, 2001). Mentoring during student teaching and during new teacher induction programs has become a strategy used internationally to support teacher learning and retention in the field (Harfitt, 2015; Lai, 2010). Mentoring support given to beginning teachers is considered crucial for immediate and long-term success, particularly with a workplace model having been in place during the student teaching experience (Carter & Francis, 2001). In order for these benefits to be realized, the mentorship experience must be effective.

Mentorship Effectiveness

If a mentor uses practices and exhibits behaviors that lead to benefits for the mentee, then it is defined as effective mentorship (e.g. Killian & Wilkins, 2009).

Recurring themes can be found throughout the mentorship literature to indicate what is needed for an effective mentorship experience (Table 1). Good fit or perceived similarity has been found to be particularly necessary for relationships with a shorter duration, such

Table 1 – Selection of Recurring Themes of Effective Mentorship

Themes	Defining Characteristics	Selected Samples in Literature
Builds Relationship	commitment to develop a high quality, mutual relationship; create collegiality	Allen & Eby (2003) Allen, Eby & Lentz (2006a) Carter & Francis (2001) Nick et al. (2012)
Clear Purpose and Goal Setting	clarify reciprocal goals and purpose of mentorship	Davies & Gibbs (2011) Nick et al. (2012)
Effective Communication	establish regular, positive modes of communicating	Davies & Gibbs (2011) Nick et al. (2012)
Empathetic	show empathy by appreciating concerns and feelings	Carter & Francis (2001) Davies & Gibbs (2011) Sosik & Godshalk (2004)
Good Fit/Perceived Similarity	relationship with similar characteristics meets needs	Allen & Eby (2003) Nick et al. (2012)
Meaningful Feedback	feedback that is useful, constructive, solution focused, balanced, specific, frequent, multi-modal	Davies & Gibbs (2011) Killian & Wilkins (2009) Nick et al. (2012) Sayeski & Paulsen (2012)
Promotes Self Reflection	use reflective practice to explore and analyze issues	Davies & Gibbs (2011) Killian & Wilkins (2009)
Role Modeling	mentor demonstrates experience and competence	Chun et al. (2012) Davies & Gibbs (2011) Sayeski & Paulsen (2012)
Socializing Agent/ Navigate Organization	help to navigate the social structure and culture	Butler & Cuenca (2012) Nick et al. (2012)
Support and Guidance	personal, professional, and psychosocial support by providing motivation and guidance to try new things	Allen, Eby, & Lentz (2006a, b) Chun et al. (2012) Davies & Gibbs (2011) Nick et al. (2012) Sayeski & Paulsen (2012) Sosik & Godshalk (2004)
Trust	open and honest; treating mentee with confidence and respect	Butler & Cuenca (2012) Davies & Gibbs (2011) Sayeski & Paulsen (2012)

as those found in formal mentorship programs (Allen & Eby, 2003) because research on fit has shown that mentor relationships developed informally tend to be much more successful than those where mentors are (sometimes involuntarily) assigned (Ragins & Cotton, 1999). In order to optimize the potential for fit, results reveal that having input into the matching process for mentor-mentee is an important characteristic of mentor relationship effectiveness (Allen, Eby & Lentz, 2006a; 2006b; Carter & Francis, 2001), for example a mentor must self-select to be in a mentor rather than be assigned to be one with no choice.

In addition to fit, Davies and Gibbs (2011) indicate that among the many important behaviors that mentors in health care must possess, they must be effective communicators, be trustworthy, empathetic, active listeners, and be able to give meaningful feedback and promote self-reflection as they help incorporate the development of SMART goals and action plans with their mentee. Similar findings are evident in education, where empathy, psychosocial support, collaboration and reflection on practice are just a few of the important factors contributing to the effectiveness of the mentorship for new teachers (Carter & Francis 2001). New teacher mentors must establish clear goals to prepare novice teachers for the politics and pressures experienced in school systems, including the realities of school-wide instruction, curriculum, and behavior management programs and systems (Carver, Margolis, and Williams, 2013). A study of what makes a mentor teacher highly effective when working with a student teacher indicated that the most effective mentors were capable of systematic observation, feedback, and conferencing, skills usually developed through training (Killian & Wilkins, 2009). These skills are associated with reflective practices. Since pre-service teachers

often mimic their mentor teachers' classroom management and instructional styles, an effective mentor teacher will help the student to develop self-reflection and will encourage reflective practices necessary to help enhance performance because it is important for mentees to develop their areas of needed improvement and not just imitate their mentors (Rideout & Windle, 2010). Self-awareness is an important tool for reflection for effective mentors, particularly to be more aware of how their mentees view their behaviors (Sosik & Godshalk, 2004).

Effective mentors provide personal and professional support to their mentee and help to develop the mentee based on their individual needs and goals (Davies & Gibbs, 2011). Some of these supports include as emotional support and helping to socialize the mentee to the organization (Butler & Cuenca, 2012). Mentors must understand that a mentee's needs may be different then their own, and they must be aware of and considerate of gender and cultural issues, as well as perceived power differences in their relationships (King & Cubic, 2005; Ragins, 1997; Ragins & Cotton, 1999). When mentors are outstanding professionals who feel it is their moral obligation to give meaningful advice about ethical paradigms, they enable mentee success (Gross & Shapiro, 2004).

Role modeling and developmental support can result in helping to build mentee leadership skills (Chun et al., 2012). This may be because effective mentors often exhibit leadership behaviors such as being self-aware, giving challenge and support, and being empathetic, resulting in psychosocial development, career development, and career satisfaction in mentees (Sosik & Godshalk, 2004). Interestingly, in one study, the most effective mentors, who seem to help mentees gain the most in terms of performance, tend

to be more self-critical and underestimate their own abilities, whereas their mentees see their mentors as strong transformational leaders (Godshalk & Sosik, 2000). This might be because they have very high standards of performance for themselves and others or because they display humility and authenticity as deeply embedded characteristics. On the other hand, studies have shown that mentors who overestimate their transformational leadership abilities tend to have lower quality mentoring relationships and are less effective mentors (Godshalk & Sosik, 2000; Sosik & Godshalk, 2004).

Many of the recurring themes of effective mentoring were well documented in nursing by Nick et al. (2012), who studied mentoring through an exploratory process to identify themes which reflect the best practices in mentoring; thereby creating a model which describes and can be used to develop effective mentorship. First, as previously noted, appropriate fit is necessary for the relationship to be successful. This can be achieved through a number of means including assigning pairs based on some type of criteria, with the understanding that however this pairing occurs it is important to have input from the mentors and mentees so that participation is perceived in a positive way. Second, a mentorship relationship must be a reciprocal partnership with regular interactions over time, and have a clear purpose with intentional goals. Third, collegiality, communication, feedback, and a supportive environment are necessary to develop a meaningful relationship. Fourth, the mentor will need to be an advocate and support system for the mentee and help him/her to develop an appropriate balance between a productive career and a life. Fifth, the mentor will facilitate networking and will help the mentee to navigate the social structure of the organization. Lastly, mentoring must be an organizational commitment with the support and resources necessary for it to be

successful. Release time and rewards for the mentor, as well as appropriate training, such as mentor workshops are required to achieve a successful program. This last finding is consistent with findings from Ramani, Gruppen, and Kachur (2006), and will be further discussed in the next section on mentor training.

Open-ended qualitative student teacher evaluations of mentor teachers have previously been studied as indices of effective mentoring generating specific practices that student teachers associated with effective practices including, planning, feedback, effective teaching and professional support (Sayeski & Paulsen, 2012). The findings of this study revealed a common set of behaviors that student teachers found to be most desirable - including advance planning, sharing of resources, constructive, specific feedback, multi-modal feedback, modeling effective practices, and trust and confidence. The Sayeski & Paulsen (2012) study is a good springboard to compare written narrative feedback from student teachers in this study to discover if there are additional characteristics that indicate what makes a good or bad mentor based on their experience, as well as compared to many of the recurring themes of effective mentoring found in this literature review (Table 1) that are not found in their study. As a means of complementarity to enhance our understanding, i.e. looking at the data on effective mentorship subjectively and objectively (Carroll & Rothe, 2010), this study will attempt to confirm and possibly extend the research findings for effective mentorship from the Sayeski and Paulsen (2012) study as well as compare it with the selected behaviors found in the literature as indicated in Table 1. Using evaluation data, this study will search for themes to respond to the research question:

Q1: What behaviors do student teachers describe important for effective mentorship during student teaching?

Furthermore, this study is trying to determine whether there is a difference in the experience for students who are placed with trained and untrained mentors in order to understand if training makes a difference. Themes will be compared for trained and untrained mentors to better understand the answer to the research questions:

Q2: Are clinical faculty perceived by student teachers to be better mentors than untrained mentors? If so, then how?

Answers to this question, by comparing the themes found as a result of training, can help to guide the development of and/or the revision of mentor training programs to help ensure that the themes for effective mentorship are realized during the student teaching experience.

Mentor Training Programs

Due to the large number of benefits associated with effective mentorship, workplace mentorship programs have become increasingly prevalent in organizations for new employees. In the 1980s and 1990s, rapid expansion of formal mentoring programs in corporations were supported to expand and improve upon the effectiveness found in informal mentoring relationships (Douglas, 1997). Formal mentorship programs have been shown to help recruit, develop, and retain high performers (e.g. Allen, Eby, & Lentz, 2006a). These programs, often created in partnership with higher education to develop structured experiences, are developed to set goals and expectations which provide career-related and psychosocial supports (Eby, 2011). The success of mentoring relationships can be positively impacted by mentor training which includes strategies and

skills for developing effective relationships because of the importance of fit. Formal mentoring programs can only be effective if participants have chosen to be involved in the process, helping to instill a sense of commitment and responsibility for the outcome and success of the relationship (Allen, Eby & Lentz, 2006a; 2006b; Wanberg et al., 2003).

Mentorship programs are found throughout the evidence-based practice literature in a variety of fields, including education, business, and government agencies. High quality formal mentoring programs must be designed so that they will meet the developmental needs of the mentee (Allen, Eby & Lentz, 2006a). The quality of training has been found to be reported as higher when the focus of the training expands beyond the career-related role of the mentor into how to develop a relationship with the mentee and provide psychosocial support (Allen, Eby & Lentz, 2006b). Reflective practice is emphasized in effective mentoring programs (Davies & Gibbs, 2011).

Eby (2011) describes research associated with high-quality formal mentoring programs in terms of the design and training, the selection of participants, and the matching of mentors and mentees. Some important considerations include: have clear descriptions of the goals and purpose of the program; it is not enough to receive training, the training must be high quality; mentorship should be voluntary; and, it is important to get feedback and check-in to make sure the relationships are working. These findings are consistent with tips for developing effective mentors in the medical field which were summarized from multiple discussions at medical conferences describing instruction that mentors need to receive for success (Ramani, Gruppen, & Kachur, 2006). According to these tips, mentor training needs to be developed and should include tools for effective

mentorship, such as clear expectations of their role, listening and feedback skill development, and an understanding of the balance between challenge and support. In addition to training for success, mentors need their own support, rewards, encouragement, and adequate time for mentoring. All of these considerations need to be included when developing mentor training programs in organizations.

Mentor training programs in teacher preparation programs. Critics of the current educational system in America indicate concerns regarding the needs for high-quality teachers and improved learning in Pk-12 education, as well as improving instructional quality and teacher retention. These concerns can be addressed by investing in teacher preparation and recruitment by training high-quality teachers as mentors (Ronfeldt, Reininger, & Kwok, 2013). Mentoring is considered a professional development experience for teachers even if there is no training involved because through the experience teachers can advance their communication and pedagogical skills, as well as their leadership experiences (Hudson, 2013). However, as found in best practices research about effective mentorship, training is essential.

Clinical faculty roles became an important addition to the mentorship experience for student teachers in the 1980s and 1990s (Cornbleth & Ellsworth, 1994), and training in planning and implementation, as well as supervision practices including conferencing strategies and providing feedback were necessary for this new role (Sherrill, 2011). In order to create an effective, sustainable training program for mentors, the program has to be designed in partnership between higher education and Pk-12 school administration (Childre & Van Rie, 2015). Childre and Van Rie (2015) point out that mentor teachers need to participate in the training with peers so they can support one another. Also, the

benefits of the training must be readily evident and materials need to be made available without any cost to them. It is important to understand that while mentees may be inexperienced in practice, they do have a strong theoretical perspective on what their new position entails based on their education, and so mentors must be able to offer authentic experiences to help bridge the gap between theory and practice (Clayton & Myran, 2013). In order for these mentoring experiences to be productive, a common vision and a shared understanding of the expectations and outcomes through a well-developed curriculum for teacher learning is important (Lai, 2010).

Butler and Cuenca (2012) reviewed recent empirical research based on student teaching mentorship experiences and conceptualized the role of mentor teachers as an instructional coach, an emotional support system, and a socializing agent. The authors describe these complex roles with an understanding that the mentor teacher might naturally assume one or all of these at any given time. As an instructional coach, the mentor teacher works alongside the student teacher to help them develop their own instructional strengths, in large part by helping to encourage reflection. As an emotional support, nurturing and supportive mentor teachers create a caring environment with trust, collaboration, and communication and help to address the natural uncertainties that occur for novice pre-service teachers. As a socializing agent, the mentor teacher helps student teachers to understand the many requirements involved in teaching that go beyond the conceptual understandings learned in teacher preparation programs. The authors indicate that there is often a disconnect between the expectation from the university and the mentor teacher's areas of expertise which has more to do with daily instruction. They suggest that training mentor teachers to better understand the goals and expectations of

the programs and how to support student teachers developmentally will help mentor teachers to be more effective.

One example of a mentor training workshop was described by Paulsen et al. (2015) using ten modules presented through case studies or assessment activities. While these teachers were referred to as mentor teachers, rather than clinical faculty, the workshop describes developing mentor skills in data collection, evaluation, and feedback on student teacher performance. This is similar in scope to the workshop that trained the mentor teachers in this study. However, there continues to be a lack of evidence to show that mentorship training does indeed make a difference. According to research related to training mentors and expectations for more effective mentorship, it would be expected that student teachers would evaluate trained clinical faculty more highly than untrained mentors at the end of their student teaching experience, resulting in the following hypothesis:

H1: Overall ratings of mentor teachers by student teachers will be higher for trained mentors as compared to untrained mentors.

If this hypothesis is supported, it would produce evidence that mentor training does indeed make a difference.

The purpose of this study is to try to determine if trained mentors are more effective during student teaching, and if so, how? A previous study attempted to show that trained mentors improved student teacher performance, but found that there was no difference between performance scores for student teachers (Hall & Vanhove, under review). The authors posited that the subjective performance evaluation may not capture the short-term benefits of mentorship for a student teacher, and that alternative criteria

such as assessing the quality of feedback might provide greater evidence of the benefits of training as suggested by the qualitative study from Sayeski & Paulsen (2012) which found that student teachers felt most supported when explicit, concrete suggestions are provided in multiple ways to improve practice. There are numerous studies which corroborate the importance of feedback on performance in multidisciplinary settings.

The Power of Feedback

Feedback is considered very important in organizations because specific, timely feedback has a positive influence on performance and workplace well-being, particularly when the feedback is specific to the task in terms of its quantity and quality (Ilgen & Moore, 1987). It is important for feedback to be positive to help improve performance because feedback is supportive and leads to satisfaction when it is positive and when employees are performing well, but may not be motivating if performance is inadequate or presented negatively (Dodd & Gangster, 1996; USOPM, 2017). Recent findings indicate that feedback can have a very powerful effect on employees, for example by receiving competence feedback some employees will put in work effort to such an extent that they will work much longer hours at the expense of their well-being (Merriman, 2017). Multisource feedback has become a commonly used tool in organizations to provide unique information through multiple rater perspectives to reinforce the meaningfulness of the feedback by incorporating multiple stakeholders in the process and is associated with positive performance measures, such as satisfaction and overall organizational effectiveness (Nieminen, Smerek, Kotrba, & Denison, 2013).

Feedback quantity. Giving feedback is an essential behavior for a mentor because meaningful feedback allows the mentee to improve on poor performance and reinforces

good performance, for example in mentoring nurses during training, positive, constructive feedback is imperative for mentors to address concerns about practice, particularly with a mentee who is underperforming to give them a chance to improve their performance (Duffy, 2013). Similarly, in an international study of teacher preparation, constructive feedback both during the pre-service and in-service preparation of new teachers is considered imperative for them to be effective in their profession (Pekkanli, 2011). Based on a growth model where performance increases with experience (Berliner, 1988), student teachers are expected to grow in their practice during their field placement. With that in mind, student teachers are often assessed by their mentor teacher using a variety of informal and formal assessments, including discussions, observations and formative and summative assessments, throughout their time in the classroom. One concern with mentor feedback in teacher preparation is that it can be variable as evidenced by studies which showed there were many inconsistencies in observational feedback, indicating that universities need to design tools for mentors to provide informed, objective feedback, as well as train mentors with the knowledge and skills to observe instruction and provide focused feedback (Hudson, 2014; 2016). Student teachers indicate that feedback is important for them to develop their teaching skills, and while both verbal and written feedback are important, written feedback is more important because of the ability to refer to it later on and reflect on it (Ali & Al-Adawi, 2013).

When mentors are trained and develop a conceptualization of the roles, such as instructional coach, in the mentorship experience (Butler & Cuenca, 2012) and providing feedback (Cottingham et al., 2011; Garza, 2009), they will have a better understanding of

their role in giving written feedback at every opportunity, whereas untrained mentors may or may not recognize the importance of or feel as comfortable giving written feedback. Therefore, the following hypothesis is suggested:

H2: Trained mentor teachers will provide more written feedback than untrained mentor teachers.

Quality feedback. Garza (2009) points out that "Improving the quality of written feedback... is one aspect of the mentoring process that may contribute to professional growth and self-efficacy" (p. 10); however, some mentors may not have the skills and knowledge to provide quality feedback. According to Garza (2009), functional feedback is written (or oral) comments that are clear and specific meant for growth and to improve instructional ability in new teachers, thus to be functional for the person getting the information. It targets specific teaching behaviors based on data from observations and highlight effective practices and/or suggest ways to improve the practice. Written feedback has the benefit of being a permanent record of progress that can be reviewed between the mentor and mentee and can assess progress over time. Alternatively, not all written feedback is useful, and it can be non-functional if it is unclear or does not provide information that can be used to improve instruction. To make feedback functional, it must include specific answers for *how* and *when*.

A number of strategies are considered to be effective in constructive feedback in teacher education contexts when shared as part of a supportive relationship, including using questions, giving compliments before suggestions for improvement, using reflective strategies to self-diagnose areas of growth, and providing a balance of positive and negative statements (Le & Vásquez, 2011). Another feedback strategy, which can

help deepen mentorship relationships, is to construct narratives to shape a student teacher's understanding of how to improve practice, rather than use evaluative statements and questions (Philpott, 2016). However, evidence shows that feedback can be differentially effective (Hattie & Timperley, 2007).

Teachers regularly use feedback to improve student performance. A meta-analysis of literature related to the use of performance feedback indicates that praise is not used as consistently as it needs to be based on standards for best practices in special education (Sweigart, Collins, Evanovich, & Cook, 2016). Praise is important as a comfort or a support but does not provide the focus on improvement (Hattie, 2011). A review of Hattie and Timperley's (2007) model of effective feedback, used for teachers to provide feedback to students in PK-12 education, can be used as a basis for understanding the power of feedback to reduce the gap between the current performance and what is should or could be (Hattie, 2011). According to the model, feedback must answer three questions,

"Where am I going? (What are the goals?) How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?)" (Hattie, 2007, p. 86).

Hattie (2007) describes how the responses to these questions can be given at four different levels – at a personal level, a task level, a process level, or a regulatory level. Feedback at a personal level, i.e. about the self is deemed to be least effective because it is uninformative about performance. Task feedback is commonly used and is helpful in that it is focused; however, it lacks the generalizability that is helpful for growth. Feedback at either the process to create or complete a task or the self-regulation level

which provides confidence to engage further in a task are both considered to be the most powerful types of feedback in terms of reflection on mastering skills.

While it is important that mentors do provide feedback, the quality of feedback is very important if it is going to help improve practice. Hattie and Timperley (2007) have provided a model of feedback to enhance learning for teachers to use with their PK-12 students. The four-levels of feedback that can be given can be adapted for mentors to work with mentees (Figure 1). In the least powerful, self-feedback, mentors tell their mentee that they are doing a good (or possibly a bad) job, but without context.

Statements such as, "Good job!" or "Wow, you're a natural!" might feel good as a personal affirmation, but it is not effective at improving practice.

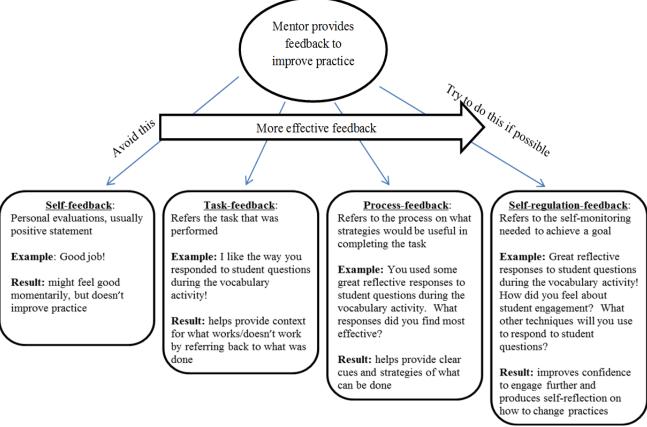


Figure 1. A model of feedback to enhance mentee performance (adapted from Hattie & Timperley, 2007)

The task-level is generally the most common level of feedback and would be expected by most mentors. This can be very helpful because of its specificity. Process- and self-regulatory levels of feedback are more powerful because they help mentees understand their performance and how to improve it. While task-feedback incorporates the 'what' to provide context; process-feedback includes the task, but also incorporates the 'how' to understand the goal; whereas, the most powerful tool is self-regulatory-feedback, which includes the task and process, but also provides cues to help the mentee reflect on and strategize ways to master the task and set goals for improvement. When given self-regulation feedback, the learner can monitor his/her own learning and close the gap between where they are in their learning and their ultimate goal for success (Hattie & Timperley, 2007).

Effective feedback is necessary for the mentor to develop a productive relationship with his/her mentee (Nick et al., 2012), as well as for providing an opportunity for reflective practice to allow the mentee to improve performance (Bush, 2009). It is the natural tendency of mentors to give praise and show leniency bias on assessments when evaluating mentees (Vinton & Wilke, 2011; Wolf, 2015). Praise does not lead to highly effective feedback; it does not answer the questions of what, how, and where to next. However, through training, mentors are often taught about the importance of giving high quality, meaningful feedback to mentees (Cottingham et al., 2011). Although they may not be aware of Hattie and Timperley's (2007) feedback model, mentors would likely be trained to give positive, direct, meaningful, written, reflective feedback, and would be more likely to be providing higher quality feedback (i.e. process-and self-regulatory feedback) more regularly than untrained mentors, who would be more

likely to provide self- or task-feedback. This differential quality leads to the following hypothesis:

H3: Trained mentors will be more likely to provide process- or self-regulatory feedback than untrained mentors.

The two research questions and the three hypotheses in this literature review are designed to answer the overarching research questions posited in the introduction.

Chapter 3: Method

Participants

Assessment and evaluation data were analyzed from 340 student teachers who completed their teacher preparation programs at a mid-sized university in the Mid-Atlantic region of the United States. Each student teacher completed a placement in one of seven local school divisions (i.e., districts) where clinical faculty training is offered (see clinical faculty mentor training program information below). The placements took place during the first of two 8-week placements in the spring semesters of 2014, 2015, and 2016, from early January to early March. The samples from each year were distributed with approximately one-third of the sample in each year – 118 student teachers in 2014, 103 in 2015, and 119 in 2016. Only data from the first student teaching placement for these candidates was used in this study to prevent 'prior experience' as a potential confounding variable in the data.

Student teaching assignments involved a broad range of PK-12 classrooms and represented a variety of teacher education licensure areas at the elementary, middle, and secondary levels (Table 1). The sample was 80% female and 87.4% self-identified as White with a mean GPA of 3.8 and a standard deviation of 0.31. This sample is consistent with the population of teacher education students at the university in terms of their student classification. The sample was primarily graduate students (85.6%), in a 5-year program (i.e. one year after completing their Bachelor's degree), although a few of the special education students were in a traditional 2-year graduate program, while the remaining 14.4% were undergraduate students in their senior year completing a Bachelor's degree in a 4-year education program in Art, Music, and Theatre, as well as

two students in their senior year for the Teaching English as a Second Language program (Table 2).

Table 2 – Student Teacher Placements

Subject	Number of Student
	Teachers
Art, grades PreK-12*	10
Elementary Education, grades PreK-6	102
Inclusive Early Childhood Education, grades PreK-3, Early Childhood Special Education, ages 0-5	43
Middle/Secondary Education, grades 6-12	123
Music Education – Instrumental & Vocal, grades PreK-12*	33
Special Education, grades PreK-12	19
Teaching English as a Second Language, grades PreK-12 ⁺	5
Theatre Education, grades 6-12*	5
TOTAL	340

Notes: The overall population, which included both graduate and undergraduate students, was included in this study. * Represents placements for students in a 4-year undergraduate program during their senior year. ⁺Represents 2 of the 5 students in a 4-year undergraduate program during their senior year. All other placements are for graduate students.

These student teachers were quasi-randomly placed with clinical faculty or untrained mentor teachers. Truly random assignment was not possible, as placements were made based on availability of mentor teachers in the seven school divisions where clinical faculty training is offered. Availability was determined at the discretion of the school division contacts (e.g., school principals or central office personnel) to university requests for student teaching placements. However, among those available at a given time, student teachers were randomly assigned. Among this sample, 61% of student teachers were assigned to clinical faculty mentors (n = 208) the remaining 39% were

assigned to untrained mentor teachers (n = 132). The sample of student teachers does not include anyone who completed a student teaching assignment outside of the timeframe described above or outside of the seven school divisions where clinical faculty training was not offered.

Clinical faculty mentor training program. In order to study the difference in experiences for student teachers working with trained or untrained mentors, the trained mentors in this study all received clinical faculty mentor status by attending a clinical faculty workshops offered in the region. A long-standing regional consortium includes seven school divisions and teacher preparation programs in four institutions of higher education, providing unified field placement, assessment, and supervision processes for student teachers. The consortium provides mentorship training to teachers in order to prepare them to work with student teachers during their field experience. PK-12 teachers who attend the training are designated as clinical faculty by the consortium. Clinical faculty must attend a refresher workshop at least once every three years to maintain this designation. The consortium has been a model for partnerships between institutions of higher education and school divisions at both a state and national level; members regularly present workshops and share materials at national professional conferences to enable others to model its best practices.

Members of the consortium conduct two-day clinical faculty training workshops which focus on a number of inter-related concepts, including an understanding of the student teaching learning experience, observation and conferencing techniques, coteaching strategies, and giving meaningful feedback through assessments. The workshops are facilitated by College of Education faculty from the four institutions who place their

students in those seven divisions, as well as several trained PK-12 teachers and school administrators who are a part of the consortium steering committee. Workshops are offered between 1-3 times per year with approximately 50 clinical faculty trained during each workshop, maintaining a cadre of approximately 650-700 active clinical faculty annually. The consortium has continually revised its process for training to reflect the growing knowledge base about best teaching practices, considering a number of guidelines and standards in the development of its curriculum and its delivery, including college and university conceptual frameworks, InTASC, the Council for the Accreditation of Educator Preparation (CAEP), the former National Council for Accreditation of Teacher Education (NCATE), the National Board for Professional Teaching Standards (NBPTS), state guidelines and regulations, local school initiatives, and clinical faculty feedback from the training. Using this information as a guide, the consortium steering committee regularly evaluates its process and updates the curriculum and instructional practices for the training.

Assessment and Evaluation Data

Student teacher performance was measured using the *Profile of Student Teaching Performance* (PSTP) (Appendix A), which was developed by the consortium to evaluate and provide feedback to student teachers during the student teaching experience. Student teacher evaluations of their mentor teacher were measured using *Feedback on the Placement* (Appendix B) which is given by the student teacher (and university supervisor) as an evaluation of the mentor teacher's effectiveness. The data from these assessments and evaluations are regularly archived as a normal part of the individual student's record within the teacher preparation programs. The archived data were

electronically accessed for this study and de-identified prior to summary and data analysis as approved by the IRB, protocol No. 16-0513.

The *Feedback on the Placement* (Appendix B) evaluation provides student teachers the opportunity to reflect on their experience with their mentor teacher at the end of the placement. Evaluative item ratings and written feedback are completed online by student teachers about their mentor teacher. Students respond to 22 items which are grouped into four sections – planning (6 items), climate (6 items), teaching (6 items), and reflection (4 items). Students respond with a 'Yes' or 'No' to indicate whether they felt that their mentor teacher displayed the indicated behaviors. Students are given the opportunity to provide narrative feedback specific to each of these four sections, as well as at the end of the evaluation in a 'General Summary' of the placement. Students are notified in an orientation meeting, in their handbook for student teaching, and in the instructions for the evaluative document that this feedback will not be shared directly with the mentor teacher, only through aggregated reporting.

The performance assessment, PSTP, is completed online by the mentor teacher (either clinical faculty or untrained mentor teacher) who works with the student teacher daily for eight weeks, at two times, T1 (as in Time 1) at the mid-point of the student teaching assignment (after approximately four weeks) and again at T2 (as in Time 2) the end of the placement (after eight weeks) as a final assessment. The measure includes five subscales: content knowledge, preparation for instruction, instructional performance, reflection and evaluation, and professionalism. According to prior research, students mentored by clinical faculty saw no greater improvement in performance based on scores for the items in these measures than those mentored by untrained mentor teachers (Hall &

Vanhove, under review). At the end of four of the subscales (all except for professionalism), there is an opportunity for the mentor teacher to also provide written feedback. Furthermore, the mentor teacher is able to provide overall summative feedback at the end of the assessment in terms of areas of strength and areas of growth.

Performance assessment feedback written by mentor teachers on this assessment form was evaluated for both quantity and quality in this study.

Procedure

A hybrid mixed methods design was used to better contextualize this study because there were two types of data (numerical and narrative) and two types of data analysis (statistical and thematic) used to respond to the research questions and hypotheses presented (Tashakkori & Creswell, 2007). Mixed methods can allow a better understanding of issues that are not easily attainable by using traditional qualitative or quantitative approaches (Tashakkori & Creswell, 2007). The sequence of analysis was not important to the analysis of data in this study because of different types of data presented to analyze differing inquiries, the data analyses will be presented in the order of research questions and hypotheses presented in the literature review. The feedback data will be reviewed using a complementarity design to understand the data both subjectively and objectively (Carroll & Rothe, 2010) to try to better understand the complexity of the phenomenon of effective mentorship.

Mentor Effectiveness. The data from *Feedback on Placement* was analyzed to better understand how student teachers perceived mentor teacher effectiveness in two ways -(1) comparing total evaluation scores, and (2) analyzing written feedback. The

evaluation scores were analyzed through quantitative measures and the written feedback was analyzed through qualitative methods.

Total evaluation scores were calculated for student teachers who completed the evaluation instrument (n = 322). The total score was determined by adding student response scores (0 = no, 1 = yes) for the 22 items on the evaluation (scores ranged from 2 to 22, M = 21.12, SD = 2.661). Mean evaluation scores for student teachers mentored by trained clinical faculty and untrained mentor teachers were compared to test H1. A multivariate analysis of variance (MANOVA) was used to make the same comparison, but using a linear combination of the planning, climate, teaching, and reflection scores rather than a single overall total evaluation score.

Written feedback was evaluated using content analysis (Berg, 2009). In a recent research study, six categories of desirable practices from mentor teachers were found by analyzing 400 open-ended, qualitative, online evaluations using content analysis to codify specific mentoring practices that were positively contributing to the student teacher experience (Sayeski & Paulsen, 2012). Similarly in the current study, student teachers are also given the opportunity to provide written feedback/comments about the placement. To analyze the research question, the student teacher's comments were qualitatively analyzed and coded for themes regarding effective mentorship for two groups—trained mentors and untrained mentors. According to LeCompte (2000) there are five steps to analyzing data that is grounded in theory including - organizing it, identifying the units of analysis, organizing them into groups through comparing and contrasting the items based on a taxonomy of items, identifying patterns, and grouping them. Similarly, Bogdan and Bilken (2003) discuss developing coding categories as a

crucial step in data analysis. For the purposes of this study, written data at each section – planning, climate, teaching, and reflection, as well as general comments – was sorted and organized using a combination of a priori and emergent codes using spreadsheets. First, written feedback was reviewed and coded using the a priori list of themes found in Table 1. Multiple codes were often indicated for each comment. Some of the codes were written in the positive (+) because they were described in positive ways as occurring during the experience, but some of the codes were written in the negative (-), having been described as missing or needed. As data were reviewed for these themes, a list of emergent codes evolved from the data that was different from the a priori codes, also indicating both positive and negative feedback related to the behavior being present or absent from the experience. Data were reviewed multiple times until no further codes could be found in the data. The coded data were then analyzed further for emergent patterns and themes. Data were described and the overall themes that emerged responded to Q1. Coded data were further compared for feedback given about trained Clinical Faculty and feedback given about untrained mentor teachers and described in response to Q2.

An *a priori* decision was made to conduct a post-hoc analysis once themes emerged from the written feedback to determine if the 22 evaluation items on the instrument represented different dimensions of support (e.g. meaningful feedback, promote self-reflection, etc.) according to those themes, and if so whether there were any differences in how those dimensions were encountered by student teachers rating trained and untrained mentors. Six pairs of pre-service teachers and the author participated in a Q-sort (Watts & Stenner, 2005), coding each item with a theme from the themes that

emerged in response to Q1 (Appendix C). Each of the pairs and the author worked independently and the sort took between 20-25 minutes. To determine what dimensions might exist, a 60% or greater agreement for each category was required from the participants (Hinkin and Schriesheim, 1989), so agreement of 4 out of 7 was deemed acceptable. Two of the 22 items (items 12 and 17) did not have agreement. Seven of the 13 themes were assigned to the items on the evaluation form (Table 7). A multivariate analysis of variance (MANOVA) compared the dimensions using a linear combinations of the seven theme dimensions. Univariate follow-up tests determined which dimensions were the best predictors of mentor training effectiveness.

Student teaching performance feedback quantity. Quantity of feedback was investigated using two measures – (1) total feedback score and (2) total word count score on the PSTP. Total feedback score is a measure of whether feedback was given or not at each sub-category and in general for T1 and T2, and total word count score was a total of the number of words written by mentors who did give feedback at T1 and T2. T1 is a formative assessment with the purpose of growth during the student teaching placement. T2 was a summative assessment, but using a growth model (Berliner, 1988), feedback is given to help improve the student teacher's practice as s/he progresses to the next placement and in her/his profession. For each participant, the scores were determined to reflect the quantity of feedback and number of total words received at both T1 and T2 and compared for trained and untrained mentor teachers.

The total feedback score includes one point for feedback given for each of the four subscales plus one point for feedback at the overall summative feedback at T1 and T2 and then summed for each participant (n = 340), with a continuous variable range of

scores between '0' (representing no feedback given at any point in the assessment for either T1 or T2) and '10' (representing feedback given at each opportunity at both T1 and T2). For the total word count score, the word count tool on Excel was used to add the total words given on each of the subscales and for the overall summative feedback at the end of assessment T1 and T2 and then summed for each participant who received feedback (n = 329), with a continuous variable range of scores between 18 words to 1049 words. H2 was evaluated by comparing the total mean scores for quantity of feedback given by clinical faculty as compared to untrained mentor teachers using an analysis of variance (ANOVA).

Student teaching performance feedback quality. In keeping with Hattie and Timperley (2007), feedback can be judged to be most effective and of high quality depending on whether it answers the questions 'where am I going', 'how am I going', and 'how will I get there'. When feedback is personal, i.e. self-feedback, it is not very helpful or meaningful to the recipient because it is does not answer any of those questions or tell them 'what' they did. Task feedback is better because it provides context as it responds more to 'where am I going'. When feedback is designed to move the recipient to improve current practice, process feedback adds the question of 'how am I going', and when it is further designed to improve future practice, self-regulation feedback is the most powerful feedback because it is designed to be reflective to improve one's own future practice and respond to 'how will I get there'. Feedback from mentor teachers is most important for student teachers at T1 because this feedback is designed to promote increased performance at T2. Therefore, for those mentor teachers who provided written feedback on instructional performance at T1, feedback was evaluated on a 1-4 scale for

quality as aligned with Hattie and Timperley's (2007) model of feedback – 1 self-feedback, 2 task-feedback, 3 process-feedback, 4 self-regulation-feedback (with 1 being least effective and 4 being most effective). The use of a rubric as a valid assessment of quality is a good method of evaluating the feedback as long as consistency can be established using the rubric (Jonsson & Svingby, 2007). In order to establish inter-rater reliability, the author plus two trained educators –a veteran teacher with 37 years of experience and the other a pre-service teacher – scored the instructional performance subscale of feedback for each mentor teacher. Training occurred in-person through conversation and using a scoring rubric with sample feedback to practice prior to scoring (Appendix D). Agreement was measured using Cohen's Kappa statistic to determine consistency among raters. H3 was analyzed to determine if the quality of feedback is different as a result of being a trained mentor by comparing categories of levels of quality feedback using a chi-square test of independence.

Chapter 4: Findings

Table 3 presents the bivariate correlations among study variables. This includes student teacher variables: gender, student classification (undergraduate or graduate), mentor status (trained clinical faculty versus untrained mentor teacher). Table 3 also includes totals of feedback (present or not present) at T1, T2, and in total on the PSTP, as well as word counts for feedback given by mentor teachers at T1 and T2 for each subscale and overall. As depicted in Table 3, female and graduate student teachers were primarily associated with receiving more feedback and a higher word count on feedback, except for the general comments where male graduates received a higher word count for feedback given to them at T1, and male undergraduates received a higher word count for feedback given to them at T2. However, these relationships were not statistically significant and were small in magnitude (r = -.08 to .04 and r = -.06 to .07, respectively).

The majority of student teachers in this sample were female (80%) and graduate students (85.6%), but clinical faculty mentorship has little difference for gender (r = -0.02), whereas it was statistically more likely to be graduate students, but the low correlation reflects low practical significance (r = .14, p < .05). Student teachers mentored by clinical faculty were consistently associated with receiving more feedback and a higher word count (except at T1 feedback on preparation); however, these relationships were also not statistically significant and were very small in magnitude (r = -.03 to .09). Also, graduate students evaluated their mentor teacher slightly higher than undergraduates (r = .13, p < .05); however, the low r reflects low practical significance. Not surprisingly, feedback scores and word count scores at T1 and T2 and at each dimension correlated moderately to strongly because a high word count from a mentor at

Table 3 – Correlations among Selected Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Gender																				
2. Class	<u>11</u>																			
3. M Status	02	<u>.14</u>																		
4. T1 Quant	06	.04	.03																	
5. T2 Quant	07	.07	.04	.40																
6. Tot Quant	07	.07	.04	.83	.85															
7. T1, A Word	06	.01	.03	.76	.36	.67														
8. T1, B Word	02	.04	.03	.76	.31	.63	.68													
9. T1, C Word	06	.05	.01	.73	.34	.64	.62	.61												
10. T1, D Word	06	.07	.06	.70	.29	.59	.60	.53	.54											
11. T1, Gen Word	.01	.00	.08	.27	<u>.13</u>	.24	.32	.22	.24	.20										
12. T1, Tot Word	02	.03	.07	.63	.28	.54	.66	.57	.59	.53	.89									
13. T2, A Word	05	.03	.01	.30	.74	.63	.34	.31	.31	.25	.18	.31								
14. T2, B Word	06	.05	.03	.34	.78	.68	.34	.32	.31	.30	.11	.26	.76							
15. T2, C Word	06	.07	.03	.32	.79	.67	.30	.30	.31	.28	<u>.12</u>	.26	.72	.76						
16. T2, D Word	08	.06	.09	.32	.75	.65	.32	.24	.30	.33	.17	.30	.63	.71	.69					
17. T2, Gen Word	.04	.06	.02	.07	.17	.15	.10	.02	.05	.11	.4	.34	.15	<u>.14</u>	.20	.15				
18. T2, Tot Word	.00	.03	.03	.22	.54	.46	.25	.17	.20	.24	.40	.42	.52	.53	.57	.51	.89			
19. T1+T2, Tot Word	01	.00	.06	.51	.49	.59	.54	.44	.46	.45	.76	.84	.49	.47	.50	.48	.73	.84		
20. Tot Evaluation	.05	.06	<u>.13</u>	.00	.06	.04	.02	.05	.08	.04	.02	.04	.08	- .17	.08	.05	.06	- .09	.03	

Notes: n = 322; r values = significant at .05; r values = significant at .01; Gender (female = "0", male = "1"); Student classification (undergraduate student = "0", graduate = "1"); M Status = mentor status (untrained mentor = "0", clinical faculty mentor = "1"); T1 = Time 1, T2 = Time 2; Quant = Quantity of feedback (given or not given); Word = Word Count for feedback given; A = PSTP Knowledge of Content subscale feedback; B = PSTP Preparation for Instruction subscale feedback; C = PSTP Instructional Performance subscale feedback; D = PTSP Reflection and Evaluation subscale feedback; Gen = PTSP Areas of Strength/Growth feedback; Tot = PSTP overall feedback

one dimension is likely to have a similarly high word count from that mentor at another dimension. Therefore, there is a high predictability for regarding the quantity of feedback in predicting the word count at each subscale and in total.

Effective Mentorship

Overall, 74% of the student teachers (n = 252) provided general comments to evaluate their mentor teacher in Feedback on Placement. For Q1, I analyzed the comments to confirm and see if I could extend the research findings from the eleven themes of effective mentorship noted in Table 1 and in Sayeski and Paulsen's (2012) study. When compared to the recurring themes of effective mentorship found in Table 1 of the literature review, a few important differences emerge. Thirteen themes emerged for effective mentorship from the general comments given by student teachers about their mentor teachers (Figure 2), with eight matching themes, three similar themes, three new themes, and one missing theme (Table 4). The eight themes that matched will not be described specifically in this section because they were consistent with descriptions in the literature; however, it is notable that the following themes - build relationships, promotes self-reflection and trust - were found sparsely in the comments. The three of them combined accounted for less than 6% of comments related to the 13 emergent themes. Only one recurring theme was not evident in any of the comments by student teachers *empathetic*. There were no specific comments related to empathy, nor were there any comments which describe the ability of the mentor to understand or share the feelings of the student teacher. Additionally, all of the themes found in Sayeski and Paulsen's (2012) are ensconced in five of the 13 themes which emerged as noted in Table 4.

Three themes changed slightly to include additional behaviors as shown in italics in Table 4. Excerpts of general comments from student teachers describe the changes in each of these themes. In the first change in theme, the student teachers did not refer to the clarity needed to be successful in terms of purpose and goals, rather a large number of comments noted that clear expectations and implementing a timeline were important, particularly as it related to planning and instruction, thereby changing the name of the highly related theme to *clear expectations and timeline* which includes the finding of advance planning from Sayeski and Paulsen (2012):

- I never felt like I was unsure of what her expectations were for me. She has
 been incredibly clear with me throughout the entire experience. (ST 16-083)
- He communicated his expectations clearly... (ST 14-026)
- We worked together to plan out the eight weeks and she told me what she expected the students to learn. (ST 16-101)
- I was integrated into the classroom one step at a time so I never felt uncomfortable or rushed. (ST 14-101)
- She helped me really work on my lesson and unit planning skills, by motivating me to get the plans done earlier than I ordinarily would have. This helped me a lot in my teaching, since I had a better and more clear direction of where my lessons were ultimately heading. (ST 15-092)

The literature review theme of *socializing agent/navigate organization* was similar to the theme of *welcoming* which emerged for student teachers. As expected, in describing the behavior in this theme, it included examples acting as a *socializing agent*,:

- She made me feel welcome from the very first day and helped me to feel a part of the 7th grade team. (ST 15-025)
- She encouraged me to attend all meetings with her and introduced me to other professionals in the meetings. (ST 14-083)

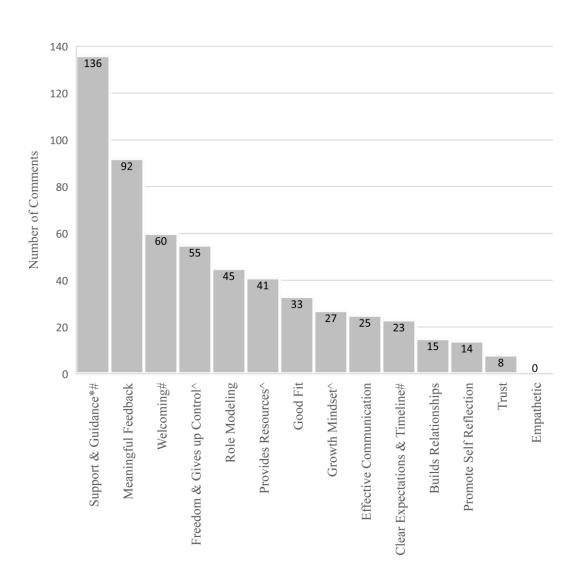


Figure 2 - Effective feedback comment themes. Number of comments (Σ =574) shown as number of times the themes was found in student teacher general comments (n=252). [Notes: *Support & Guidance theme includes comments on encouragement and challenge; # indicates themes that are altered from themes originally found in Table 1; ^ indicates new themes which have emerged.]

Table 4 – Comparison of Themes of Effective Mentorship

Themes From Literature Review	Themes Emerging from Student Teaching
	Evaluation of Mentor Teachers
Builds Relationships	Builds Relationships
Clear Purpose and Goal Setting	Clear Expectations and Timeline**
Effective Communication	Effective Communication
Empathetic	
	Freedom and Gives up Control
Good Fit/Perceived Similarity	Good Fit
	Growth Mindset
Meaningful Feedback	Meaningful Feedback**
Promotes Self Reflection	Promotes Self Reflection
Role Modeling	Role Modeling**
Socializing Agent/Navigate Organization	Welcoming
Support and Guidance	Support and Guidance (and Challenge and Encouragement)
	Provides Resources**
Trust	Trust**

Notes: Italics indicates changes in the theme; **bold** indicates new themes; ** indicates findings consistent with Sayeski and Paulsen (2012).

as well as examples of helping mentees to navigate the organization.:

- She helped me become familiar and comfortable with the 2nd grade teaching team, and always kept me informed of news and events and what might be happening in second grade and school-wide. (ST 15-001)
- ... helped me find resources within the school and made me feel welcome
 [with]in the staff and faculty. (ST 14-105)

However, one additional component that seems specific to this theme of effective mentoring is *being made welcome* into the mentor teacher's classroom:

- She took the time to have students write introductions to me with their pictures
 so that I could get to know students my first week. (ST 14-101)
- She really made me feel like it was just as much my class as it was hers. (ST 14-104)
- She made sure the first day that I felt both welcomed in the classroom and
 [with] the staff, and she clearly established that I was to be treated as the new
 teacher with all the same respect that she expects. (ST 16-094)

This additional component warranted a name change for the emerging theme to welcoming which includes each of the components. Support and guidance was by far the theme most represented in the evaluation of mentor teachers by student teachers, mentioned in 24% of the comments. This may in part be because the theme was expanded to include challenge and encouragement behaviors:

- My cooperating teacher offered a learning environment that challenged myself
 while giving support where needed. (ST 16-005)
- She helped me develop classroom management skills and was always encouraging even when I felt I wasn't doing a great job. (ST 15-001)
- o She was more than willing to help me out with whatever I needed. She was not only a support for the times I saw her in school, but she also supported and encouraged dialogue outside of the classroom. She helped me revise plans when the weather messed them up and it was really helpful when she let me talk through my plans with her. (ST 15-008)

- I struggled throughout the block with classroom management, but with her help and guidance I was able to take control and learn effective strategies. (ST 15-026)
- [Mentor teacher] provided more support than I had ever anticipated. She guided me through each step of the process with ease. She is an outstanding mentor. (ST 16-043)

Lastly, three additional themes emerged through the comments which were not found in recurring themes as indicated in bold in Table 4. The first new theme, *freedom* and gives up control, is characterized by the mentor teacher's willingness to be flexible regarding instructional practices and classroom management and allowing the student eacher to take over the classroom. Many of these comments were related to the themes of welcoming and support and guidance, but were specific to the freedom they were given to take over the role as primary instructor:

- She made me feel very welcome in the classroom and really stepped back so that I could step up as head of the classroom. I really appreciated how she let me try out whatever ideas I had... (ST 14-019)
- I felt that she was really good at giving me a chance to explore and try various methods out and giving me the room to really test my abilities but assisting anytime that I felt I needed her. (ST 15-056)
- She gave me so much freedom in the classroom and was so helpful to me when
 I was having serious behavior management issues. (ST 16-099)
- He allowed me to do things my way in the classroom, which was extremely
 helpful in the learning process that this placement has offered me. (ST 15-038)

o MT is a very effective educator and does a great job of transitioning out, while still providing any support that you require or ask of her. I felt that she was really good at giving me a chance to explore and try various methods out and giving me the room to really test my abilities but assisting anytime that I felt I needed her. (ST 15-056)

The second new theme that emerged, *growth mindset*, was about growing as an educator. This theme is consistent with expectations that student teachers should improve in their performance as a result of the student teaching experience, and help prepare them for the next steps in their career. Examples of comments related to this theme include:

- [Mentor teacher] was very helpful in my growth and development as a teacher.
 (ST 15-077)
- I truly feel as if I have grown as a preservice teacher and I will be able to take everything I learned in [mentor teacher's] classroom with me as I continue my education and path to my future career. (ST 14-070)
- I have been in several classrooms, but I have grown as a teacher more so in this classroom than any other classroom. (ST 16-007)
- MT was a wonderful cooperating teacher who was helpful but also pushed me to grow as a teacher in areas that I need improvement in. (ST 16-024)

Lastly, the third new theme which is consistent with Sayeski and Paulsen's (2012) finding of sharing of resources, *provides resources*, is highly related to *support and guidance*, but rather than being about the mentor teacher's demeanor and behavior, it is very specific to tangible materials being given to support the experience, as described by the following examples:

- She gave me access to all of her binders that were filled with lessons and learning activities for each unit. (ST 14-060)
- [Mentor teacher] offered me her resources and materials for the topics I covered but would let me know that I did not have to stick with those items. (ST 15-017)
- o She helped find materials and pick out appropriate books. (ST 16-101)

Effective mentorship at each dimension on evaluations. In addition to looking at total general comments, I analyzed comments given at each of the four dimensions on the *Feedback on Placement* evaluation – planning, climate, teaching, and reflection. These comments were coded in the same way as all of the general comments and revealed similar themes, as well as some interesting results indicating that certain themes were more prevalent at different dimensions. Students were able to give comments at any/all of the dimensions, as well as for the overall feedback. A small percentage of students (n = 14) chose to give feedback at one or more of the dimensions, but did not give general comments. Often comments found in each of the dimensions mirrored what was written in general comments; therefore, each of the dimensions were analyzed separately. Common themes were consistently found at each of the dimensions for those student teachers who offered feedback in these subsections (Table 5).

In the section on planning 22% of student teachers (n = 76) included comments ($\Sigma = 79$). This section had slightly more respondents than the other subsections. Interestingly, although comments on the theme of *clear expectations and timeline* was only a very small percentage for general comments (4%), one-third of the comments for the planning dimension were related to this theme ($\Sigma = 26$). Student teachers indicated

Teaching **Planning** Climate Reflection **Clear Expectations** Welcoming Meaningful **Promotes Self** and Timeline Reflection Meaningful Feedback Meaningful Meaningful Feedback Feedback Feedback Support and Guidance Support and Welcoming Guidance Effective Communication **Provides Resources** Freedom

Table 5 – Common Effective Mentorship Themes for Dimensions of Feedback on Placement

the importance of planning ahead and working collaboratively on planning with both positive and negative comments:

- MT and I met weekly to create "skeleton plans" and figure out who would be teaching which small groups. It was so helpful to co-plan weekly, and also daily, because we could both share ideas about instructional activities that would best support the kids. (ST 16-034)
- At first, I was a little overwhelmed at the amount of freedom afforded to me.
 While this feeling may not turn out to be universal, it might be good to consider providing a little more structure at the beginning of the placement. (ST 16-038)
- As a teacher who has been around awhile it seems weird to plan because she knows exactly what she wants to do for each lesson. However, as a student teacher more planning would be greatly appreciated. Planning out each week or even further would be extremely beneficial, especially during "snowy" months. (ST 15-020)

 MT did not provide me with an initial planning period. I felt as though I was thrown into the situation without any of her expectations explained. (ST 16-022)

Four other themes were recurring in this section each reflecting about 10% of the comments - meaningful feedback, support and guidance, provides resources, and freedom.

Only 19.7% wrote comments related to the evaluation section on climate (n = 67) resulting in 78 coded comments. In particular, two themes emerged as most prevalent in this section. Not surprisingly, the theme of *welcoming*, which is all about the climate, represented one-third of the comments ($\Sigma = 26$) in this section, and *meaningful feedback* represented another 22% of comments ($\Sigma = 17$).

There were 82 comments made by 22% of the student teachers (n = 74) regarding the sub-dimension of feedback on teaching. The majority of comments in this section, 42.7%, were related to feedback ($\Sigma = 35$):

- MT always provided me with feedback on a daily basis that was helpful in bettering my lessons and classroom management. (ST 16-114)
- [Mentor teacher] always provided clear and consistent feedback on my lessons and activities. (ST 14-014)
- [Mentor teacher] gave informal feedback on lessons as I created them. Also,
 she provided informal feedback on lessons, as well as six formal observations.
 This feedback was constructive and beneficial. (ST 14-015)

About one-third of the comments on feedback ($\Sigma = 10$) were negatively framed regarding concerns about the lack of feedback encountered:

- I rarely received written feedback, it would have been beneficial to refer to something tangible. (ST 15-083)
- Again, the main area that was lacking was feedback/observation consistency. I would have liked more feedback as I was assuming more responsibility. (ST 14-021)
- I am not sure that my CT every really looked at my lesson plans. I gave them in advance and compiled a binder to give my CT, but I rarely got feedback unless I sought it, so in the grand scheme I'm not completely sure how I did. My CT seemed happy with the lessons and assessments though. (ST 16-062)

Two other themes were common in this sub-dimension – about 16% of the comments related to *support and guidance* ($\Sigma = 13$) and 12% of the comments related to *effective* communication ($\Sigma = 10$).

The fewest comments ($\Sigma = 55$) were found in the section on reflection, with only 15% of student teachers (n = 47) responding to this section. Three themes recur in this section. It is not surprising that in the section on reflection, 20% of the comments are related to the theme *promotes self-reflection* ($\Sigma = 11$). Reflective practice was well expressed in comments:

- [Mentor teacher] would regularly ask me how I felt a lesson went. He would let me share and then would reflect upon my lesson as well. (ST 16-111)
- After each lesson that I taught [mentor teacher] would reflect with on me on how I felt it went and how she felt it went. (ST 14-022)

Similar numbers of comments were also provided regarding welcoming ($\Sigma = 10$) and meaningful feedback ($\Sigma = 9$). The welcoming theme related primarily to navigating the

organization and was likely included in this section due to the nature of the statements in the evaluation for this section related to professional growth and attending meetings (Appendix B):

- I was able to attend a teacher in-service day as well as a work day, both of which helped me grow professionally. (ST 14-015)
- I attended many meetings after school, such as eligibility meetings, IEP
 meetings, and professional development trainings. I also spent the last few
 days observing other classrooms, teachers, and subjects. (ST 16-020)
- She always included me in her meetings, so that I could get a chance to see all
 of the other "jobs" teachers have aside from teaching. (ST 16-030)

In this section on reflective practices, most of the comments about feedback (8 out of 9) were negatively phrased:

- I received great oral feedback, but did not get written feedback every week. (ST 14-081)
- I could have benefited greatly from some positive feedback and appraisal.

 Instead, everything was geared towards my mistakes and had negative undertones. It made for a very unpleasant teaching and working environment where I was scared of failure and did not feel comfortable trying new things. I felt as if I was constantly being judged in a negative way and that the second I would make a mistake, she would override me and take over the class. (ST 15-054)
- The midterm and final [assessments] were done without me knowing and was not reviewed with me. (ST 16-119)

The only theme of effective mentorship that was consistently found in all four of the dimensions on the *Feedback on Placement* evaluation was *meaningful feedback*. Since the themes of effective mentorship have been determined, the next step is to determine if there are any differences in effective mentorship as a result of mentor training.

Training and effective mentorship scores. I assessed whether there was a difference on how student teachers evaluated their mentor teacher based on when they were trained or untrained. An independent samples t-test revealed a statistically reliable difference between the mean score for evaluations on placements for students placed with an untrained mentor (M = 20.67, SD = 3.643) and students placed with a trained mentor (M = 21.38, SD = 1.821), t(320) = 2.317, p < .05, 95% CI [-1.307, -.107] in support of H1; however, this finding has a small effect size, Cohen's d = 0.247, representing low practical significance. Training does make a small difference in how mentor teachers are evaluated by their student teacher; however, this low practical significance becomes even more evident when 10 cases were removed (5 trained and 5 untrained) due to scores that were 3 standard deviations below the mean and the significant effect was removed, for any difference between students placed with an untrained mentor (M = 21.35, SD = 1.629) and students placed with a trained mentor (M = 21.60, SD = 1.143), t(310) = 1.587, p = .114, α = .05.

Dimensions of feedback on placement. In addition to looking at total evaluation scores, I analyzed the scores at each of the four dimensions on the Feedback on Placement evaluation – planning, climate, teaching, and reflection for differences between trained and untrained mentors. These dimensions were highly correlated (Table

6), so a MANOVA analysis was conducted to assess effects of the mentor condition on the linear combination of subscale scores. A statistically significant Box's M = 152.22, p < .001, led me to rely on Pillai's Trace to estimate the multivariate effect. MANOVA results revealed that there was no statistically significant difference in type of evaluation score (planning, climate, teaching, reflection) based on clinical faculty status, Pillai's Trace = .024, F (4, 317) = 1.92, p > .05; Wilk's Λ = 0.976, partial η ² = .02.

Table 6 – Pearson Correlations of Dimensions on Feedback on Placement

	Planning	Climate	Teaching
Climate	.76		
Teaching	.81	.77	
Reflection	.65	.61	.71

Note: n = 322; r values significant at 0.01 level for all cases.

Training and effective mentorship comments on evaluations. In response to Q2, I performed a content analysis of comments given by student teachers in the *Feedback on Placement* to reveal some important differences between effective mentorship for trained and untrained mentor teachers (Figure 3). The percentage of student teachers with trained mentors in the study (61%) is similar to the percentage of student teachers who wrote evaluations for the general comments section (63%). The bar graph shows that most trends for comments are similar for trained and untrained mentors, for both positive and negative comments; however, there are two notable exceptions — *clear expectations and timelines* and *meaningful feedback*. For each of these themes, there is a much larger percentage of negative comments related to untrained mentors.

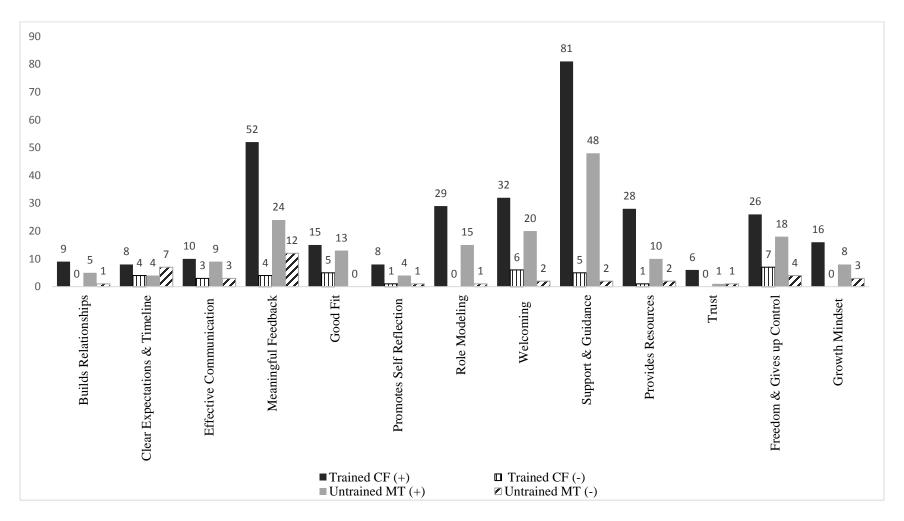


Figure 3 - Effective feedback themes and training – Bars represent the number of positive (+) and negative (-) comments made by student teachers for each theme, separated by trained (n = 158) versus untrained (n = 94) mentors as found in general comments on Feedback on Placement evaluations.

For *clear expectations and timelines*, 30% of the comments are negative and only 17% of the comments are positive for untrained mentors, whereas the trend is opposite for trained mentors with 35% of the comments being positive and 17% are negative. Positive comments for trained mentors were primarily related to mentors gradually transferring responsibilities and working together, and the few negative comments were related to unclear expectations. This is slightly different than what is seen with untrained mentors. In these cases, most of the comments were about the lack of a clear timeline and too much responsibility given too soon, such as:

- Looking back, I would only ask [mentor teacher] to give me a timeline of when he wants me to take over, instead of just handing it off to me on my third day in the classroom. (ST 14-046)
- [Mentor teacher] allowed me to have a lot of full time teaching time in her classroom I am so grateful! However, in the future I'm not sure if every student teacher will be able to handle the responsibility at the rate I did. Just something to be aware about with future student teachers-maybe have more gradual teaching experiences to really gauge their skill set before full time teaching responsibilities start. (ST 16-057)

Overall, students agreed that *meaningful feedback* was necessary for effective mentorship as seen by this theme surfacing at all dimensions and being the most prominent theme in the general comments after *support and guidance* which encompassed multiple codes.

Whereas only 4% of respondents on this theme who were placed with trained mentors had any negative comments related to feedback, 13% of the negative comments came

from student teachers placed with untrained mentors. In these cases, the lack of feedback was the major concern as described by the following comments:

- o I essentially got zero feedback from my cooperating teacher. She was disengaged the entire time I was teaching and spent very little to zero time actually observing me. The only feedback I ever got was harsh criticism she would administer while I was still actively teaching a lesson. The two [assessment] forms she filled out were not done with consideration or thought. (ST 15-054)
- o I would suggest more attention to feedback/appraisal/reflection for the cooperating teacher. This is especially critical during the assumption of more teaching responsibility. As a student teacher, I can reflect on my own teaching, but the comments and advice that the coop teacher provides are invaluable in helping me grow. The feedback also should be consistent- the student teacher should be receiving the majority of the comments before primary teaching in order to have a chance to reflect on the advice and make changes/improvements in the classroom. (ST 14-021)

Some other interesting findings include that while there were a relatively small number of comments for these themes, both *effective communication* and *good fit* has roughly the same number of comments for both trained and untrained mentors. Also, the themes of *growth mindset* and *trust* are not stated much, but they are mentioned more for trained mentors with 59% of growth comments 75% of trust comments coming from students with trained mentor teachers, rather than untrained mentors.

Training and effective mentorship scores by theme. Although the evaluation is already divided into four subsections, I further analyzed the 22 items on the *Feedback* on *Placement* evaluation with a Q-sort to create dimensions of effective feedback based on the effective mentorship themes found in this study. Twenty of the items were sorted into seven of the 13 themes (Table 7), and two of the items (items 12 and 17) did not sort on any of the themes. Each of the 7 themes were moderately correlated (r values = .40 to .73, p < .01). A statistically significant Box's M = 367.81, p < .001, led me to rely on Pillai's Trace to estimate the multivariate effect. MANOVA results indicate a

Table 7 – *Q-sort Method for Themes on Feedback on Placement Items*

Themes	Item(s)	Agreement
Clear Expectations/Timeline	3	0.7
Clear Expectations, Timeline	19	0.6
Effective Communication	16	0.7
	20	1.0
Freedom/Gives up Control	5	0.6
	11	0.7
Meaningful Feedback	6	0.6
	8, 13 14	1.0 0.9
	18, 21	0.7
Promotes Self Reflection	9	0.7
Support/Guidance	2	0.7
	4, 22	0.6
	15	0.9
Welcoming	1	0.7
	7	0.6
	10	0.9

Notes: Item(s) refer to the *Feedback on Placements* items found in Appendix B, Agreement refers to the number of categories of agreement/total Q-sort participants (n = 7).

statistically significant difference in a linear combination of theme dimensions for evaluation scores based on mentorship training, a.k.a. clinical faculty status, F(7, 314) = 2.565, p < .01; Pillai's Trace = .054, partial $\eta^2 = .054$. After a Bonferroni correction for the seven dimensions $\alpha = .007$, mentorship training only approaches a statistically significant effect on the dimension of *meaningful feedback*, F(1, 320) = 7.022, p < .008, partial $\eta^2 = .021$. The mean score for trained mentor teacher (n = 203, M = .9647, SD = .099) is higher than the mean score for untrained mentor (n = 119, M = .9188, SD = .210). Therefore, the dimension of *meaningful feedback* was the best predictor of mentor training effectiveness.

Feedback Quantity

I assessed whether student teachers mentored by trained clinical faculty had a greater quantity of feedback than student teachers mentored by untrained mentor teachers. Although simple mean comparisons show that student teachers placed with a trained mentor received more overall feedback at T1 plus T2 on their PSTP (n = 208, M = 6.01, SD = 3.020) than students placed with an untrained mentor (n = 132, M = 5.74, SD = 3.147), an independent samples t-test failed to reveal a statistically reliable difference between the mean quantity of feedback, t(338) = .782, p = .435. Next, for those students who received feedback from their mentor teacher on the PSTP, the mean word count for each time feedback was received at T1 and T2 for student teachers placed with an untrained mentor (n = 127, M = 316.30, SD = 169.224) was lower than for those students placed with a trained mentor (n = 202, M = 325.22, SD = 169.249); however, an independent samples t-test failed to reveal a statistically reliable difference as well, t(327) = .465, p = .642. Therefore, H2 was not supported by the data, as students mentored by

trained clinical faculty received no additional feedback in terms of whether or not feedback was given or the word count of the feedback that was received than those mentored by untrained cooperating teachers.

Feedback Quality

Using a rubric to score feedback on quality (Appendix D), I compared my ratings (as rater 1) for feedback on instructional performance at T1 with two other raters – an experienced educator (rater 2) and a pre-service teacher (rater 3). While there was substantial interrater reliability with the rater 2, Kappa = 0.720, p < .001, 95% CI (0.633, 0.806), there was low reliability with rater 3, Kappa = 0.326, p < .001. As a rule of thumb, values must be higher than 0.6 to claim a good level of agreement (Landis & Koch, 1977); therefore, only the data for rater 1 and rater 2 was used to compare quality ratings. A chi-square test of independence was performed to examine the relation between mentor training and quality of feedback given to student teachers (Figure 4). The relations between these variables was not significant for either rater, X^2 (3, N = 214) = 2.821, p > .05 for rater 1 and X^{2} (3, N = 214) = 5.177, p > .05 for rater 2. According to Figure 4, the graph is consistent with the hypothesis that a higher percentage of taskfeedback is given by untrained mentors and a higher percentage of process feedback is given by trained mentors; however, the self-feedback and self-regulation feedback are in the opposite direction to hypothesis. Self-feedback is shown to be used a higher percentage of the time by trained mentors and self-regulation feedback is given at a slightly higher rate by untrained mentors. Therefore, H3 was not supported by the data as students mentored by trained clinical faculty did not receive higher quality feedback than

students mentored by untrained mentor teachers at T1 for the feedback on instructional performance.

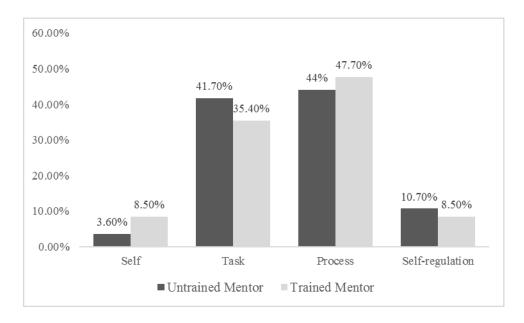


Figure 4 – Percentage of quality of feedback ratings. Mentor teacher feedback on instructional performance at T1 (n = 214) was compared for trained clinical faculty (n = 130) as compared with untrained mentor teachers (n = 84).

Chapter 5: Discussion

Despite the growing popularity of mentor teacher training programs, there has been a lack of evidence to show that clinical faculty training results in more effective mentors. However, prior research on effective mentorship provides a good reference from which to begin to make comparisons between trained and untrained mentors. The overarching purpose of this mixed methods study was to better understand if mentor teacher training is effective. This was done by determining what behaviors are associated with effective mentorship, and determining if there were differences in effective mentorship for trained mentors. Qualitative findings established 13 themes of effective mentorship based on student teacher evaluations of their mentors. Two themes, clear expectations and timelines and meaningful feedback, emerged as indicators of more effective mentorship for trained mentors over untrained mentors. I hypothesized that because of the training received by clinical faculty, student teachers would evaluate them as more effective mentors. There was only limited evidence in support of this hypothesis due to low practical significance; however, there were statistically significant findings for higher mean scores of effectiveness ratings for trained mentor teachers, and meaningful feedback was found to be the dimension on which student teachers felt that trained clinical faculty were stronger than untrained mentor teachers.

Prior to this finding, it has already been demonstrated in the literature that meaningful feedback is one of the important factors for effective mentorship (Davies & Gibbs, 2011; Killian & Wilkins, 2009; Nick et al., 2012; Sayeski & Paulsen, 2012). I hypothesized that feedback given by trained mentors is better than feedback given by untrained mentors in terms of both quantity and quality. Although mean trends were

consistent with trained clinical faculty offering more feedback, the hypothesis was not supported by the data. In this chapter, I will discuss the findings of effective mentorship and the implications for mentor training, particularly in regards to the power of feedback, resulting from this study. Limitations and next steps will be discussed.

Effective Mentorship Themes

An important finding in this study was that there are some differences between the themes of effective mentorship that arose from the literature review, and the themes emerging from the content analysis of student teacher evaluations of their mentor teachers. Some of the differences are likely based on contextual differences between a student teaching experience and other mentored experiences in organizations. The first finding involved revising and expanding three of the themes in Table 1 to incorporate clear expectations, welcoming, and support and guidance. The next difference included three new themes related to freedom, growth mindset, and providing resources. Finally, the theme related to empathy in the literature was not found in this research. Each of these differences are discussed in turn.

Clear expectations. Rather than having a clear purpose and goals, which is probably an assumption of a student teacher experience and well-documented (e.g. a student teaching handbook and/or a course syllabus), clear expectations and framing the experience with a timeline were identified as making the difference between a positive and a negative experience by student teachers. This makes sense because the mentor assumes an evaluative role in terms of observations and assessments of their student teacher, unlike mentors of beginning teachers whose role is one of support rather than evaluation (Polikoff, Desimone, Porter & Hochberg, 2015). Student teachers want a clear

picture of when they are expected to perform different instructional tasks and student teaching requirements, such as taking on primary responsibility for planning, assessment, instruction, etc. Congruently, advance planning, a behavior found in Sayeski and Paulsen's (2012) study, is part of the clear expectations required by student teachers.

In a study of mentors' perceptions of their roles in mentoring student teachers, findings suggested that mentors do not see themselves as assessors for student teachers (Kwan & Lopez-Real, 2005), revealing a disconnect with how student teachers view their mentors. This would cause issues with a mentor's understanding of the importance of clear expectations. This disparity is more apparent from recent research indicating that student teachers view mentor teachers as gatekeepers, a potentially negative role which suggests that student teachers see their mentor teachers as someone who can either let them in or keep them out of the profession (Davis & Fantozzi, 2016). In order to remedy this gap in understanding, training regarding the need for mentor teachers to provide clear expectations and a timeline becomes critically important.

Welcoming. The roles of socializing agent and helping to navigate the organization are both very important during student teaching; however, these behaviors are just part of the larger role of welcoming them – into their classroom, the grade level, the school, the division, the profession, etc. There are multiple studies about creating welcoming climates in terms of diversity research and for creating inclusive classroom environments (e.g. Moore et al., 2010). Interestingly, this theme was not readily evident in the mentorship literature, which is surprising because of the number of direct references that students made about their mentor teacher making them feel welcome in the evaluation comments in this study. More effort needs to be made to ensure that mentors understand

the importance of welcoming their student teachers, thereby setting the stage for a successful mentorship relationship.

Support and guidance. The most common theme found throughout the effective mentorship literature is the importance of support and guidance (e.g. Allen, Eby, & Lentz, 2006a, b; Chun et al., 2012; Davies & Gibbs, 2011; Nick et al., 2012; Sayeski & Paulsen, 2012; Sosik & Godshalk, 2004). Some of the supports mentioned by these authors include personal and professional support, psychosocial support, relationship support, and for student teaching mentorship experiences, there are contextual supports including instructional support and student support. The aspect of guidance in this theme refers to the delivery of support. However, some additional components to support and guidance for student teachers, specifically challenge and encouragement, were revealed in this study. Encouragement has been found in the literature to represent another strategy for student teacher growth and development (Sayeski & Paulsen, 2012) in addition to support; however, since it can be viewed as a mechanism to deliver support, like guidance, it was included as part of the same theme in this study. Also, mentees can face challenges and grow if they are supported (Davies & Gibbs, 2011), and a balance between support and challenge is important for success. This yin and yang concept is critical to a growth mindset, another theme discussed below. In the study, there were more comments related to support than anything else, most of which were extremely positive. Therefore, this may be a behavior that is characteristic of being a mentor and would not need to be a transparent part of training, although an understanding of the variety of supports needed and the mechanisms to provide them may be helpful, particularly for new mentors.

Freedom and gives up control. In mentoring situations in many organizations, the mentee is looking at the mentorship experience as an opportunity to be promoted, learn new skills, and prepare for advancing within the organization (Allen et al., 2006a); therefore, the mentor helps the mentee with the purpose of improved organizational performance. In these situations, the mentor and mentee are each secure within their own position in the organization. In teacher preparation and other mentored internships, the student teacher or intern is not necessarily staying in the setting in which he or she is temporarily being mentored. The mentor helps the mentee with the purpose of improving their personal practice, and as indicated by Davis and Fantozzi (2016), as a gatekeeper to the overall profession. These authors point out that in student teaching the mentor has to allow the student teacher to take over the curriculum. Therefore, effective mentorship in internship-types of experiences incorporates an important practical component, the ability to allow the mentee to have 'control' of the mentor's job for first-hand experience. Teachers, notorious for being 'control freaks', have to be willing to share their job when they take on the responsibility of mentoring a student teacher and should be made aware of this expectation by universities prior to placement.

Growth mindset. One of the new themes that emerged is about growth. This is an interesting theme considering the relatively short time that student teachers spend with their mentor in the classroom. However, the idea of a progression from novice to competent to expert teacher in education is pervasive, with an understanding that there are steps to the development of teachers (Berliner, 1988). The growth mindset in mentorship experiences during student teaching related to the developmental steps of the profession. This is a slightly different mindset then helping someone new to an

organization to enhance career and personal development (Allen & Eby, 2003). Teaching as a profession is about improving pedagogical competence which happens in a collaborative setting with continued opportunities for development over time (Darling-Hammond & Richardson, 2009). Personal and professional growth is particularly evident when mentors and student teachers use a co-teaching model (Baeten & Simons, 2016), which should be a significant aspect of clinical faculty training programs.

Provides resources. As previously noted, support and guidance is common in effective mentoring relationships, and providing resources could easily be argued to be one example of this important theme. However, comments from student teachers indicated that tangible resources, e.g. receiving notebooks, plans, materials, etc. were positively associated to mentorship, being particularly useful to them at the onset of their career. This is different from the psychosocial support and career guidance found commonly in effective mentorship (e.g. Allen et al., 2006b; Fagenson-Eland, Marks & Amendola, 1997), which are behaviors rather than physical resources. Sayeski and Paulsen (2012) found a similar need for sharing of resources in their study, showing the consistency of need for this mentor function during student teaching. It is possible that without training, mentor teachers are not aware of the importance of sharing their resources, as some might believe that it is part of the growth experience of student teaching to create everything new.

Not all themes all the time. An interesting finding of this study was that student teachers evaluations indicated different effective mentorship behaviors at each of the dimensions of the *Feedback on Placement* (Table 5). A total of only eight of the 13 themes of effective mentorship were found in the four section, as compared to the general

comments. This finding was consistent with the Q-sort of the evaluation items, where the items were found to be represented by seven of those eight themes (Table 7). The theme *provides resources* was not captured by the Q-sort, perhaps because it's too specific and any item that would be related to that theme would probably also fit under *support and guidance*. At each of the four sections in the evaluation there was very little overlap of themes, although *welcoming* was described in two dimensions (climate and reflection), as was *support and guidance* (planning and teaching). *Meaningful feedback* is the only theme found across all four sections of the evaluation tool. Effective mentorship behaviors are not omnipresent; instead, they are present at appropriate times when needed to help develop the mentee. Not surprisingly, feedback is necessary at all times.

This finding does not mean that the five themes that were not present in these sections of the evaluation are not important, instead it points out the relative nature of how different behaviors might correspond to different aspects of the mentoring relationship. For example, Wanberg et al. (2003) created a conceptual model of mentoring with antecedents and outcomes having described the mentoring experience in terms of mentoring functions. Career functions include sponsor, protector, and coach, and psychosocial functions such as friend, counselor, and role model occur over a temporal sequence in the mentorship relationship. Another study also found several mentor functions as trainer, activist, and support that involved a variety of mentor behavior factors, with different behaviors supporting different roles (Smith, Howard, & Harrington, 2005). Therefore, it would make sense that as different functions are performed, different behaviors would be needed at different times to be effective. If a mentor training curriculum treats each of the themes of effective mentorship as behaviors

that should be present at all times, then it is not acknowledging the developmental nature of the student teaching experience. A practical approach might be to consider which behaviors are most useful in different situations.

Where's the empathy? The idea of an empathetic mentor or an emotional support is not a finding in this study based on any of the comments made by student teachers. The comments did not refer to any understanding of what they were going through, thinking, or feeling, in sensing their emotions, or any other descriptor that is normally associated with an empathetic response. Conversely, another student teacher study using qualitative data analysis looked at common components of a positive mentoring relationship from both the mentor and student teacher perspectives (Izadinia, 2016). The author indicated that mentors and mentees had a common finding of emotional support, as well as academic support, communication and feedback as the most important elements of a mentor relationship. This emotional component was contrary to our findings. However, after a closer look at the theme reported in this paper indicating the importance of emotional support, a concern arose. None of the supporting quotes for emotional support indicated obvious feelings or emotions. The only statement that came close was "It would be nice to feel like they're on my team..." (Izadinia, 2016, p. 391), which doesn't refer to an empathetic or an emotionally supportive response, as much as one of support. This was one of many articles that included an emotional component, for example Davis and Fantozzi (2016) referred to mentors as an emotional support by talking about the positive encouragement that they gave in terms of feedback. Rather than emotional support, I would argue that what other authors might be referring to fits better under the theme of *support and guidance*. Perhaps a further review of other studies indicating empathy as an important theme in effective mentorship would reveal how this theme has been developed over time and whether there is strong merit to continuing to view it as a construct related to mentorship or whether it is more closely related to the *support and guidance* theme.

Same themes - negative comments. It was apparent from the comments that just because a teacher assumes the responsibility of mentoring a student teacher, it doesn't mean that everything will be positive. Multiple negative comments related to the themes, as indicated in Figure 3, show that the absence of certain behaviors can have a very negative outcome for the mentee. Scandura (1998) described dysfunctional mentoring in terms of a negative relationship, as well as a list of very concerning behaviors, such as sabotage and deception. In situations that might lead to these dysfunctional behaviors, it is likely that the university supervisor would have the opportunity to intercede on behalf of the student teacher. For the few participants who had indicated tremendous concerns about their experience, it is likely that a placement with their assigned mentor will purposefully not be sought in the future after the program reviewed the evaluation. However, for most of the participants in this study, their negative comments were more likely attributed to an absence of behaviors, rather than dysfunctional behaviors that could be corrected with additional training. The negative comments were equally helpful in describing the themes as the positive ones because they indicated what they wish they had experienced as a result of the experience. Evaluations from student teachers and mentees in all organizational settings must be carefully read and analyzed to continue to improve program practices.

Extending the research. In addition to comparing the findings of this study to the themes found in Table 1, it was also compared to a study by Sayeski and Paulsen (2012) whose purpose was to identify best practices in mentoring for teacher preparation. Their findings complement and extend previous research in considering which characteristics teacher education programs might want to use when placing students in their field experiences. Each of their findings fit neatly into five of the 13 themes in this current research including *clear expectations and timeline* which includes advance planning, meaningful feedback which includes constructive, specific and multi-modal feedback, and three themes that basically say the exact same thing in slightly different ways: provides resources - sharing of resources, role modeling - modeling effective practices, and trust - trust and confidence. Although not a separate finding, in their discussion the authors point out the importance of mentors having strategies that foster growth and development, thus acknowledging the importance of a growth mindset. However, the other seven themes found, including support and guidance, were not accounted for in their research despite its obvious importance to the current investigation. Even though their study makes recommendations for professional development or mentor teacher training at its conclusion, it does compare trained mentors to untrained mentors. With the high costs of resource expenditures on training programs for mentor teachers, this comparison becomes increasingly important. The next section of this discussion looks at the support of effective mentorship in light of mentor training and its implications for leaders in teacher preparation programs.

Mentor Training and Leadership Implications

Student teachers who report having better quality mentor experiences, such as more freedom over instruction, feel better prepared to teach resulting in higher efficacy at the beginning of their careers (Ronfeldt, Reininger, and Kwok, 2013). The question becomes whether training is important to provide a better quality experience. Educational leadership in teacher preparation programs, PK-12 school divisions, and departments of education have little doubt that mentoring is important in teacher education as they continue to fund and require mentorship programs to meet accreditation regulations (e.g. CAEP, 2013; NCATE 2010) and state legislation driven by federal grant incentives (e.g. EAQEA, 1999). However, in today's need for data-driven decision making it is important that evidence support the success of mentor training programs in creating more effective mentorship practices. Very few attempts have been made to date to determine whether mentor teacher training improves the quality of student teaching. Results of this study have important implications for leaders to begin to review the content and the success of current mentor training and to continue to evaluate their programs to ensure that the program is meeting goals and expectations.

It was apparent in this study that many students placed with untrained mentors had wonderful experiences, and that some of the students placed with trained mentors did not, as evidenced by many of the comments in their evaluations. Nevertheless, findings of this study do begin to provide some evidence that mentor training does makes a difference in creating more effective mentors. According to Hudson (2013), mentoring in and of itself acts as a professional development through engagement with their mentees,

but they need training to develop the skills to become effective mentors. According to Sayeski and Paulsen (2012), there must be a call to action:

It is time to begin the transformative work of ensuring that the teachers selected to serve as cooperating teachers are provided the necessary support and direction to ensure that exemplary mentoring practices occur within student teaching internships (p. 129).

This call to action means that school divisions and institutions of higher education will need to partner together to ensure mentoring practices are effective.

According to Sherrill (2011), one reason why training can be beneficial is that teachers who assume the leadership role of mentor cannot be expected to have the skills necessary to 'teach' adults, but they can enhance these skills through training as well as better understand ways to facilitate the conditions to create an environment conducive to mentoring. Mentor training needs to include concepts that are considered highly important in the preparation of mentor teachers (Sayeski & Paulsen, 2012). Therefore, the themes found in the current study need to be included in a curriculum for mentor teacher training, and leaders of educational organizations need to evaluate current programs to see if they align with these themes.

As universities design or revise programs for mentorship, theory and practice will both need to be included so teachers can learn to engage purposefully in the most effective mentoring practices. One example of a mentor training workshop discussed by Paulsen, DaFonte, & Barton-Arwood (2015) relied on 10 modules that included a presentation of evidence-based practices and an explanation of expectations of student teachers as well as difficulties that they had encountered and how to assist them if this

difficulty occurred. Discussion among mentors was an important component of the workshop, as well as the use of case studies, candidate work samples, and practice. Participants in the training indicated that the case studies enabled them to better understand what would be expected of them and the authors noted that outcomes of the program included increased support of student teachers. This program provides some good suggestions, but one area of concern is that there is only one module (the first one), specifically about effective mentoring. The others are related to areas of instruction that they want the student teacher to become familiar with, e.g. differentiated instruction and classroom management. Therefore, I would suggest that rather than having a separate module on effective mentoring, that the themes of effective mentoring consistent with each of the roles of the mentor be incorporated into any training.

The question of why some trained mentors might not be as effective as others is better understood by research from Langdon (2014). While some mentors for beginning new teachers grew as a learner from the experience of being a mentor, as part of a learning collaboration, others did not engage in practices leading to a learning partnership, even if they had good intentions. Perhaps even when mentors receive training, which explains how to engage in skills that will promote a positive shift in their mentoring practice, and even if they understand it and have the best of intentions to do it, some mentors still may not know how to shift their practice to improve their support for increased growth for both them and the mentee. Therefore, even with the same training, not all mentors may develop equally. Another possible reason for this difference may be based on a leadership gap in determining who will attend mentorship training. Often there is a disconnect between the goals of the central office administrators who predominately

are involved in working with higher education to create programs and with the building level administrators who assign the teachers to attend a professional development workshop. For example, if the purpose was to develop the skills of an already excellent mentor, then a principal who assigns a poor mentor teacher with the hopes of them becoming just an adequate mentor, might be sending someone who will not be able to meet the expected levels of effectiveness.

Two themes emerged from this study that were indicators of increased effectiveness through training – clear expectations and timeline and meaningful feedback. Colleges of Education working with school divisions in mentor training programs need to capitalize on the ideas shown to be successful in the current mentor training program. However, those themes that were not represented as being more effective should be incorporated more intentionally into the program. Additionally, even though meaningful feedback was shown to be more effective for trained mentors in this study, there were some major gaps. Mentor training should include practical strategies for increasing the quantity and quality of written feedback to support student teachers. In light of the limited findings in support of effective mentoring for trained clinical faculty, the current program should be reviewed and revised. If state departments of education have invested a lot of money to develop mentor training programs, then they must put resources towards evaluating current programs for effectiveness.

The Power of Feedback

Feedback is a powerful tool that can enhance or detract from the student teaching experience. There is a tremendous amount of attention given to the mentoring role of 'provider of feedback' to help student teachers develop strengths and work on needed

areas of growth in their pedagogical practices (Kwan & Lopez-Real, 2005). When feedback is absent, mentees become even more acutely aware of how helpful it would have been and they desire it (Davis & Fantozzi, 2016). This was found in multiple negative comments in this study indicating the absence of feedback, particularly with untrained mentors.

According to Sayeski and Paulsen (2012), feedback is consistently ranked as one of the most important and desirable traits for mentor teachers; and they found through their research that it is not just the feedback, but the frequency of it, as well as specific and concrete suggestions that are meaningful and useful. Additionally, asking high quality questions to reflect on practice, and giving explicit feedback in multiple ways, such as in the moment, at a set time for reflection, and in multiple forms including verbal, modeled, and written, are all important to have a powerful impact on student teacher growth.

Mentors must be willing to be honest in their constructive feedback (Izadinia, 2016).

While this seems obvious, sometimes mentors shy away from honesty in an effort to prevent conflict in the mentoring relationship. This reveals why trust is an important theme of effective mentorship. Another important consideration with feedback is that it needs to be continuous, in small amounts constantly throughout the day, rather than a big debrief when the day is over (Izadinia, 2016). This allows for constant reflective practice and the ability to self-correct.

Mentor training using the feedback model in figure 1, adapted from Hattie and Timperley's (2007) study, should be transparent. We cannot assume that trained mentors know the importance of or how to give self-regulation feedback, as evidenced by their low incidences of this type of feedback. Perhaps the training, in an effort to stress how

important the process is for developing student teachers somehow pushed trained mentor teachers in the direction of process-feedback. Conceivably strong mentor teachers who are not trained might have used more self-regulation feedback because they were not inadvertently trained otherwise. To improve quality, the effective feedback model presented in this study must become a skill purposefully added to training workshops.

Limitations and Future Directions

Several limitations in this study might have impacted the current study and have implications for future research. For example, there were multiple variables that could not be controlled for in this study, such as experience and quality of mentor teachers, as well as university supervisors, who were not discussed in this study. University supervisors are a major source of mentorship in addition to the mentor teacher (Higgins & Kram, 2001); therefore, the quality of the student teacher's relationship to his or her university supervisor may add to the complexity of the student teacher experience. Additionally, other student teachers, teacher education faculty, and school based administrators can all have an impact on the growth and development of a student teacher, and can affect some of the themes of effective mentorship, particularly their impression of welcoming. Fit and matching are also important concepts, good fit was revealed as one of the 13 themes that may be missing from the mentor program. Mentor teachers may have been assigned to work with a student teacher by a school administrator; however, most mentor teachers do get to decide if they will have a student teacher and get to review a profile of the student teacher (e.g. biographical information and resume) prior to the start of the placement. As this is field research, these types of extraneous variables often pose a threat to internal validity. This is a consideration for

future research, which can try to control for potentially important variables when possible.

Issues with the assessment and evaluation tools, PSTP and the *Feedback on Placement* evaluation, could have had a dramatic effect on findings. There is a question as to whether these tools used by the university have been proven to be valid and reliable measures of performance and mentor evaluation. Also, the way the forms were set up limited the way they could be used. For example, the original idea for evaluating quality of feedback was to use the general summary at the end of the PSTP, but that section is not really open ended; it had directions that asked mentor teachers to indicate strengths and growths. In this format, it was not possible to discern differences for quality of the feedback. Therefore, I looked at the instructional performance feedback; however, that only offered a narrow view of the feedback that might have been given to a student teacher. A better approach might have been to examine all of the feedback on each PSTP, but that was beyond the scope of this research study. Additionally, the evaluation tool only provides a dichotomous rating for each item – yes or no. This limits any opportunity the student teacher might have had to qualify his or her assessment of how well the mentor teacher performed each item. Additionally, the Q-sort showed that only a small number of the themes of effective mentoring are being covered by the evaluation tool, and there is an uneven divide amongst those dimensions that are indicated. It might be worthwhile for the institution to revise this tool to gather data which may more successfully help to differentiate effective mentorship from ineffective experiences. Another issue that can occur as a result of the evaluation tool is a halo effect. This can easily impact a student teacher's perception of their mentor, so when they have a

particularly positive or negative opinion of one characteristic, they will likely give an overall rating that is more positive or negative based on that opinion (Keeley, English, Irons, & Henslee, 2013).

After reviewing the similarities and differences that emerged, an important consideration that has not been discussed in the literature yet, because there is no instrument to measure it, is the relative importance of each of the effective mentor behaviors. Such an instrument to rate the relative importance would be useful in better understanding effective mentor behaviors. Other future research considerations include reviewing other artifacts of the student teaching experience to better understand the differences between student teacher experiences with trained and untrained mentors. Some of these artifacts include weekly reflections from student teachers, observation feedback from mentor teachers, and evaluations of the mentor teacher by university supervisors. Additionally, surveys and interviews and other forms of data collection could be useful in continuing to understand the degree to which mentor training may or may not be making a difference for effective mentoring. Additionally, feedback from mentor teachers from the training would be important in understanding what gaps they might think have occurred.

One consideration for future studies is to continue to use a mixed methodology. The trends in the social sciences research, including PK-12 education and teacher preparation, have held long time debate between the benefits of qualitative and quantitative research designs, as well as analytic versus systematic approaches; however, these approaches are complementary to one another in order to better understand complex phenomena (Salomon, 1991). The type of methodology chosen for a research study

should support the research design and research question. Additionally, complementarity in mixed methods research is a useful philosophical concept which allows researchers to understand the complexity of how data are constructed using multiple but related research approaches (Carroll & Rothe, 2010). This allowed me to interpret the data, for example on meaningful feedback, in light of multiple instruments and research methods to begin to make comparisons and attempt to better understand the data. Another way to describe this methodology is more widely understood as a form of triangulation (Berg, 2009), using multiple methodologies and multiple data sources to better understand effective mentorship. In much of the literature reviewed for this study, only one approach was used for data analysis, and given the mixed results of this study, I recognize that other published findings might have been limited by a lack of multi-methods. In this study, the qualitative data revealed a bigger piece of the picture than the quantitative data, thereby indicating the importance of using multiple measures. This study does a good job of showing the merits of a mixed method design, and should be considered for future mentorship research studies.

Conclusion

The purpose of this mixed method, practitioner-based study was to contribute to the teacher preparation literature in an effort to help guide education leaders in their data-driven decision making regarding developing and evaluating mentor training. It attempted to accomplish this by using multiple indicators to determine whether mentor training works to create more effective mentors for student teachers. A framework of 13 important themes for effective mentorship for student teachers was created. The study also attempted to better understand the important role of feedback as it relates to trained

mentor teachers. This paper found some evidence to support that mentor training is helping mentors to be better at providing meaningful feedback, as well as clear expectations and a timeline. It did not find that the meaningful feedback that is being provided is of any larger quantity or better quality than from those untrained mentor teachers who are also providing feedback. The author recommends creating mentor training programs that are aligned to the themes found in this study, including information on providing highly effective feedback. The current training program used in this study should be revised in light of the limited support for effective mentorship differences as a result of training.

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Appendix A

Profile of Student Teaching Performance

The student teacher ...

A. KNOWLEDGE OF CONTENT*

A. KNOWLED	A. KNOWLEDGE OF CONTENT						
	3 - Target	2.5	2 - Acceptable	1.5	1 - Unacceptable		
A1.	©	C	C	C	0		
Demonstrates an understanding of appropriate content standards (SOL/profession al standards).	3.0 explicitly references AND clearly aligns appropriate content standards with planned activities and assessments.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	2.0 explicitly references appropriate content standards in daily plans.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 inaccurately and vaguely references OR does not reference appropriate content standards.		
A2. Identifies key	•	C	C	0	C		
principles and concepts of subject matter.	3.0 clearly identifies key principles and concepts in daily plans AND effectively uses them to organize instruction, develop learning activities, or assess student work.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	2.0 clearly identifies key principles and concepts in his/her daily plans.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 inaccurately and unclearly identifies OR does not identify key principles and concepts in daily plans.		
A3. Uses	0	0	0	0	0		
examples to support basic principles of content.	3.0 uses appropriate AND varied examples to illustrate basic content principles.	and the 2.0 rating.	2.0 uses some appropriate examples to illustrate basic content principles.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 uses inappropriate examples OR no examples to illustrate basic content principles.		
A4. Links	C	0	0	C	0		
content to students' prior experiences and to related subject areas.	3.0 references content to both the students' prior experiences AND related subject areas.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	2.0 references content to EITHER the students' prior experiences OR related subject areas.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 references content to NEITHER the students' prior experiences NOR related subject areas.		

Comments: Knowledge of Content section

B. PREPARATION FOR INSTRUCTION*

	3 - Target	2.5	2 - Acceptable	1.5	1 - Unacceptable
B1. Is familiar	0	С	С	С	C
with relevant aspects of students' background, knowledge, experience and skills.	3.0 demonstrates detailed understanding of the background, experiences, and skill level of all students in the class.	performance lies between the 3.0 and the 2.0 rating. Add comments	2.0 demonstrates basic understanding of the background, experiences, and skill level of most students in the class.	performance lies between the 2.0 and the 1.0 rating. Add comments	understanding of the background, experiences, and skill level of
B2. Plans for	0	C	C	C	C
the unique characteristics of individual students (i.e. TAG/GT, ESL, Special Needs, among others).	3.0 effectively plans differentiated instruction based on the varying needs of the majority of individuals in the class.		instruction based on the varying needs of some individuals in	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	differentiate instruction based on the varying needs of
B3. Formulates clear and	C	C	C	C	C
appropriate learning outcomes.	3.0 develops differentiated learning outcomes AND states these clearly on the lesson plan.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	learning outcomes for the class AND states these clearly on	rating. Add comments	1.0 develops inappropriate learning outcomes OR fails to state appropriate outcomes clearly on the lesson plan.
B4. Plans	C	C	C	C	0
appropriate methods to meet the learning outcomes (i.e. technology, cooperative learning, etc.).	3.0 plans appropriate AND varied methods, activities, and technology to support student learning.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	methods, activities, and technology to support student	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	methods, activities, or technology to support student
B5. Plans assessments of	C	C	C	C	C
learning outcomes.	3.0 plans appropriate assessments AND can articulate ways assessments should impact	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments	2.0 plans appropriate assessments that are linked to learning outcomes.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments	1.0 does not include assessments in the lesson plan OR includes assessments that

2.5

2 - Acceptable

1.5

3 - Target

1 -

Unacceptable future learning below to explain below to explain are activities. further. further. inappropriate. Comments: Preparation of Instruction section C. INSTRUCTIONAL PERFORMANCE* 3 - Target 2.5 2 - Acceptable 1.5 1 -Unacceptable C1. Establishes a 🦳 0 safe physical and 3.0 creates a 2.0 plans for the 1.5 Student 2.5 Student 1.0 does not psychological physical and physically and performance performance consider the environment. psychologically lies between the psychological lies between the physical and safe environment 3.0 and the 2.0 safety of 2.0 and the 1.0 psychological AND can explain rating. Add students. rating. Add safety of the purpose for comments comments students. these choices. below to below to explain further. explain further. C2. Creates a 0 \mathbf{C} 0 0 \bigcirc climate of 3.0 actively 2.5 Student 2.0 treats 1.5 Student 1.0 does not treat fairness and encourages performance students fairly performance students fairly respect. fairness and lies between the and respectfully. lies between the and respectfully respect among 3.0 and the 2.0 2.0 and the 1.0 **OR** allows the students AND rating. Add rating. Add climate to creates a climate comments comments interfere with that provides below to below to access to access to explain further. explain further. appropriate appropriate learning learning opportunities for opportunities for all students. all students. C3. Maintains \circ \circ \mathbf{C} \circ 0 consistent 3.0 demonstrates 2.5 Student 2.0 effectively 1.5 Student 1.0 is unable to standards for the ability to performance and consistently performance effectively and positive change and adapt lies between the responds to lies between the consistently classroom classroom 3.0 and the 2.0 students' needs 2.0 and the 1.0 respond to behavior. management rating. Add and behavior. rating. Add students' needs plans based on comments comments and behavior. students' below to below to changing needs explain further. explain further. and behavior. C4. Makes 0 0 \mathbf{C} \circ 0 procedures and 3.0 ensures that 2.5 Student 2.0 provides 1.5 Student 1.0 presents outcomes clear all students performance students with performance unclear OR to students. understand the lies between the clear, accurate lies between the inaccurate learning 3.0 and the 2.0 information 2.0 and the 1.0 information objectives and rating. Add about the rating. Add about the can carry out the comments learning comments learning

	3 - Target	2.5	2 - Acceptable	1.5	1 -
	procedures for instructional activities.	below to explain further.	objectives and procedures for instructional activities.	below to explain further.	Unacceptable objectives or the procedures for instructional activities.
C5. Presents	C	C	0	0	C
content accurately and effectively.	3.0 uses effective content delivery strategies, makes content relevant to students' prior experiences, and uses technology appropriately for presentation of content.	performance lies between the 3.0 and the 2.0 rating. Add comments below to	2.0 uses effective strategies to present content to students.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 does not use strategies effectively to present content to students.
C6. Models	0	0	0	0	0
appropriate language usage.	3.0 uses standard English in speech and writing while respecting students' cultural and dialectical differences.	performance lies between the 3.0 and the 2.0 rating. Add	2.0 uses standard English in speech and writing.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 does not use standard English in speech or writing.
C7. Provides	0	0	0	0	0
appropriate accommodations for diverse learners.	3.0 effectively differentiates instruction based on the varying needs of the majority of individuals in the class.	3.0 and the 2.0 rating. Add comments	2.0 differentiates instruction based on the varying needs of some individuals in the class.	performance lies between the 2.0 and the 1.0	1.0 does not differentiate instruction based on the varying needs of individuals in the class.
C8. Provides	C	C	C	0	C
opportunities for content application.	3.0 uses activities or strategies that are specifically designed to actively encourage students to think independently, creatively, or critically about content.	3.0 and the 2.0 rating. Add comments below to	2.0 guides students to think independently, creatively, or critically about content.	•	1.0 does not provide opportunities for students to think independently, creatively, or critically about content.
C9. Checks for	C	C	C	C	C
understanding using a variety	3.0 uses a variety of assessment	2.5 Student performance	2.0 monitors student	1.5 Student performance	

	3 - Target	2.5	2 - Acceptable	1.5	1 - Unacceptable
of formal or informal assessment techniques.	techniques to monitor and analyze individual and group comprehension of the content, makes appropriate instructional adjustments as necessary AND gives all student meaningful, substantive, and specific feedback.	3.0 and the 2.0 rating. Add comments below to explain further.	comprehension of content AND provide students with limited feedback.	lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	-
C10. Uses instructional time effectively. Comments: Ins	3.0 provides students with activities of instructional value for the entire time, pace them appropriately, AND performs non-instructional procedures efficiently.	3.0 and the 2.0 rating. Add s comments below to explain further.	2.0 paces instruction appropriately for most of the students AND does not spend an excessive amount of time on non-instructional procedural matters.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	to the content and/or the students AND spends
D. REFLECT	ION AND EV	ALUATION – 2.5		STUDENT L 1.5	EARNING*
D1. Provides	3 - Target	2.5 C	2 - Acceptable	0	Unacceptable
specific evidence to document student learning.	appropriate AND detailed evidence to document student learning.	performance lies between the 3.0 and the 2.0 rating. Add	appropriate evidence to document student learning.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 provides no evidence to document student learning.

	3 - Target	2.5	2 - Acceptable	1.5	1 - Unacceptable
D2. Accurately	0	C	C	C	C
describes strengths and weaknesses of his/her teaching skills in relation to student learning.	3.0 uses evidence of student learning to self-assess teaching strengths and weaknesses.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	student learning to self-assess teaching	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	student learning to self-assess teaching
D3. Seeks and	⊙	C	C	C	C
uses information from professional sources (i.e. cooperating teacher, colleagues, and/or research) to improve instruction.	3.0 seeks information from varied professional resources AND uses it effectively to improve instruction.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	from the cooperating teacher AND	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	information from professional sources to
D4. Indicates	C	C	C	C	C
strategies to improve instruction.	3.0 develops specific and varied strategies to improve instruction.	2.5 Student performance lies between the 3.0 and the 2.0 rating. Add comments below to explain further.	2.0 develops general proposals to improve instruction.	1.5 Student performance lies between the 2.0 and the 1.0 rating. Add comments below to explain further.	1.0 develops no proposals to improve instruction.
Comments: Re	flection and Ev	valuation sectio	n		

E. Professionalism

The student teacher demonstrates personal and professional behaviors that support student learning and/or the performance of other professional responsibilities.*

	3 - Target	2 - Acceptable	1 - Unacceptable
E1. Is responsible and dependable	C	C	C
E2. Shows initiative	C	C	C
E3. Is punctual and regular in attendance	C	C	C
E4. Exhibits the ability to make decisions	C	C	C

	3 - Target	2 - Acceptable	1 - Unacceptable
E5. Sets appropriate priorities and meets deadlines	O	C	O
E6. Displays mature judgment and self-control	C	C	C
E7. Demonstrates enthusiasm for teaching	C	C	C
E8. Has compassion for students	C	C	C
E9. Dresses appropriately	C	C	C
E10. Demonstrates professional behavior with students, families and school personnel	С	C	C
E11. Maintains confidentiality	C	C	C

Suggestions for Continuing Professional Development Areas of Strength and Areas for Growth

Appendix B

Feedback on the Placement Items

Planning

- Provided me with an orientation to the school, the faculty, and the classroom and explained school and classroom procedures
- 2. Provided me with instructional materials and handbooks
- 3. Reviewed his/her expectations for lesson plans, student assessments, etc.
- 4. Helped me establish instructional goals and objectives for my pupils
- 5. Helped develop a plan for me to gradually assume full responsibility for classroom instruction
- 6. Helped develop a plan for me to receive feedback

Climate

- 7. Provided a teaching/learning atmosphere that supported dialogue and discussion
- 8. Shared advice and constructive feedback
- 9. Encouraged open communication for my self-reflection and professional growth
- 10. Provided a teaching/learning environment that was conducive to student learning
- 11. Helped me develop planning skills and provided opportunities for me to test theory and practice in the classroom
- 12. Fostered the support of building-level administrators, staff, and other faculty

Teaching

- 13. Provided feedback on my lesson plans prior to their being taught
- 14. Observed me informally and provided oral feedback on both classroom management skills and at least one lesson or activity each day

- 15. Served as a resource person for me regarding supplies, equipment, curriculum responsibilities, and the teaching process
- 16. Worked cooperatively with my university supervisor to see that I met program goals and expectations
- 17. Worked cooperatively with my university supervisor to monitor my readiness to assume increased classroom teaching responsibilities
- 18. Provided increasing feedback and support as I assumed full responsibility for classroom instruction

Reflection

- 19. Kept me continually appraised of my progress and revised my goals and expectations as necessary
- 20. Kept my supervisor and my principal informed of my progress on a regular basis
- 21. Completed my written mid-point and final evaluations in cooperation with my university supervisor
- 22. Provided me with opportunities for professional growth by encouraging observations of other educators, attendance at professional meetings and participation in the entire school's programs

 $\label{eq:Appendix C} \textbf{Appendix C}$ Feedback on the Placement Items – Q Sort

Builds Relationships	Clear	Meaningful Feedback
Effective Communication	Expectations/Timeline	Role Modeling
Good Fit	Empathetic	Welcoming
Trust	Promotes Self Reflection	Freedom/Gives up Control
Support and Guidance	Provides Resources	
	Growth Mindset	

1. Provided me with an orientation to the school, the faculty, and the classroom and
explained school and classroom procedures
2. Provided me with instructional materials and handbooks
3. Reviewed his/her expectations for lesson plans, student assessments,
etc
4. Helped me establish instructional goals and objectives for my pupils
5. Helped develop a plan for me to gradually assume full responsibility for classroom instruction
6. Helped develop a plan for me to receive feedback
7. Provided a teaching/learning atmosphere that supported dialogue and discussion
8. Shared advice and constructive feedback

. 9. Encouraged open communication for my self-reflection and professional growth

10. Provided a teaching/learning environment that was conducive to student learning
11. Helped me develop planning skills and provided opportunities for me to test theory
and practice in the classroom
12. Fostered the support of building-level administrators, staff, and other faculty
13. Provided feedback on my lesson plans prior to their being taught
14. Observed me informally and provided oral feedback on both classroom
management skills and at least one lesson or activity each day
15. Served as a resource person for me regarding supplies, equipment, curriculum
responsibilities, and the teaching process
16. Worked cooperatively with my university supervisor to see that I met program
goals and expectations
17. Worked cooperatively with my university supervisor to monitor my readiness to
assume increased classroom teaching responsibilities
18. Provided increasing feedback and support as I assumed full responsibility for
classroom instruction
19. Kept me continually appraised of my progress and revised my goals and
expectations as necessary
20. Kept my supervisor and my principal informed of my progress on a regular basis

21. Completed my written mid-point and final evaluations in cooperation with my
university supervisor
22. Provided me with opportunities for professional growth by encouraging
observations of other educators, attendance at professional meetings and participation
in the entire school's programs

Appendix D

Categories of Feedback – Scoring Rubric

1 - Self

- This is a personal evaluation.
- It can be in the form of praise "Doing well,"
 or in the form of criticism "Needs to improve."
- This would only represent the learner, not the task or the process.

Example: "ST does an excellent job!"

2 - Task - (the WHAT)

- This refers to task accomplishment.
- This refers to how a task is understood or performed (a.k.a. corrective feedback = feedback on performance).
- It does NOT generalize to other tasks.
- Answers where am I going?

Example: "ST has demonstrated a strong understanding of content knowledge."

3 - Process - (the HOW)

- This refers to the process needed to perform a task.
- It can include different strategies or ways to modify the task to improve it.
- It does NOT refer to an ongoing process or a future improvement.
- Answers how am I going?

Example: "ST plans instruction using curriculum frameworks, writes objectives and lessons to match the SOL's, she provides clear examples and information correlates to standards."

Example: "Could work on using more examples related to students' lives or experiences to help them grasp concepts."

4 – Self-regulation – (the FUTURE)

- This refers to ways to self-monitor, self-reflect, or self-regulate actions.
- It can refer to correcting or improving the process for the future.
- It must include reference to the task and process.
- It can include strategies, and future or reflective language like "consider," "think about," and "next steps."
- Answers how will I get there?

Example: "A piece of advice for lesson planning with content detail, would be to include not only a daily objective for the lesson planned, but also a language objective for student with ESL needs to help them assist in understanding the vocabulary used."

Practice using the rubric above – how would you score this? See next page for answers.

Feedback	Score
ST has increasingly become aware of the necessity to plan for the needs of the various children in any given class.	
Due to school being out for weather, ST has not started teaching his own lessons He is watching me teach the even classes and then he uses my lesson and teaches the odd classes the next day. He will take over for two full weeks using his own developed lessons.	
ST's plans are done well with clear and precise information.	
ST is learning and growing with every lesson he teaches. As he becomes more familiar with	
his students he adapts his lessons from class to class.	

This is how these might be scored:

Feedback	Score
ST has increasingly become aware of the necessity to plan for the needs of the various	2
children in any given class.	
This feedback indicates that the student teacher has gained <u>awareness</u> to plan for the needs	
of children - which is self-regulation, however it doesn't say HOW. Therefore, it is only	
talking about the task. Self-regulation feedback must include the task AND the process	
(= task).	
Due to school being out for weather, ST has not started teaching his own lessons He is	1
watching me teach the even classes and then he uses my lesson and teaches the odd classes	
the next day. He will take over for two full weeks using his own developed lessons.	
This feedback is saying what the ST has not done, and even though it is referring to the task	
of teaching his own lessons, it does not give feedback on the task, only the learner (= self).	
ST's plans are done well with clear and precise information.	3
This feedback refers to the task (plans) and the process (clear and precise information)	
(= process).	
ST is learning and growing with every lesson he teaches. As he becomes more familiar with	4
his students he adapts his lessons from class to class.	
This feedback talks about the task and the process, as well as growth and adapting (= self-	
regulation)	

If you had more than one item that was different, please try these practice items, and look to the next page for answers.

Feedback	Score
ST is easily able to identify the SOLs for each subject unit. She is working on learning how to pick the key concepts out of the curriculum framework, plan for these essential skills and link them to concepts the kids would understand.	
ST seems to know the content. She does a good job with asking questions. We talked about becoming an expert on whatever it is you are teaching.	
Does an excellent job with using relevant examples- things that the students can relate to and understand and that grab their attention!	
ST is always researching and preparing for each part of her lesson. She ties every details in the 5th grade writing or reading SOL and always asks for my input on her information.	
Understands the content very well!	

This is how these might be scored:

Feedback	Score
ST is easily able to identify the SOLs for each subject unit. She is working on learning how to pick the key concepts out of the curriculum framework, plan for these essential skills and link them to concepts the kids would understand. This feedback clearly indicates the what and how (a.k.a. the task and process) (= process).	3
ST seems to know the content. She does a good job with asking questions. We talked about becoming an expert on whatever it is you are teaching. This feedback talks about the what, not the process of how (= task).	2
Does an excellent job with using relevant examples- things that the students can relate to and understand and that grab their attention! This feedback also indicates what the task is (using examples) and the how (making them relevant) (= process).	3
ST is always researching and preparing for each part of her lesson. She ties every details in the 5th grade writing or reading SOL and always asks for my input on her information. This feedback speaks to the ST's self-regulation (researching, preparing, tying, asking) about a specific task (lesson plan) and the process (details the SOL).	4
Understands the content very well! This feedback does not really talk about a task, it talks about the learner.	1

NOTE: If you have more than one item that was different, please contact the primary investigator for more training before scoring the feedback.

When scoring feedback, please note – there are often misspellings and there are some blank rows. Please do not change the data or the sheet – just enter the score to the right of the feedback. Thanks!