New Teacher Support: How One Massachusetts School District Facilitates and Sustains Teacher Growth

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NEW TEACHER SUPPORT:
HOW ONE MASSACHUSETTS SCHOOL DISTRICT FACILITATES AND SUSTAINS TEACHER GROWTH

Dissertation in Practice

By

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by

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Abstract

This qualitative case study examined the structures and conditions in one Massachusetts school district that supported new teachers. Data was gathered from semi-structured interviews with teachers and administrators, artifact analyses and participant observations of district meetings. While the existing literature on new teacher support focuses on mentoring as the primary means of induction, study results indicated that the district supported new teachers through building a collaborative atmosphere where new teachers regularly meet with veteran teachers in their subject area and grade level; weekly meetings with mentor coordinators; and strong principal support. However, new teachers were not formally assigned a mentor, which can leave them without a primary support person. Recommendations are made to formalize the mentoring program, to provide a mentor coordinator for each building, and to involve principals more formally in the induction program.

Acknowledgements

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Context and Background

Research identifies teacher quality as one of the most influential factors impacting student achievement (Darling-Hammond, 1997; Ganley, Quintanar, & Loop, 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002; 2010). Yet a critical challenge for those committed to improving teacher effectiveness is that researchers, policymakers, and practitioners continue to struggle to define teacher quality (Robertson, 2006; Stigler & Hiebert, 1999; Tsui, 2009; NCLB, 2001). Additionally, teachers and leaders often lack a collective capacity to sustain teacher development that is continuous from day-to-day and year-to-year (Day, 2000; Drago-Severson, 2007; Robinson, Lloyd, & Rowe, 2008; Saunders, Goldenberg, & Gallimore, 2009; Stigler & Hiebert, 1999; Stronge, 2010).

Teacher quality is essential to continuous student growth (Darling-Hammond, 1997; Ganley, Quintanar, & Loop, 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002; 2010). Research on the cumulative effects of teachers on student achievement (Sanders & Rivers, 1996) show them to be "additive and cumulative over grade levels, with little or no compensatory effects" (p. 1). As Stronge (2010) points out, "…it is imperative that we place quality teachers in classrooms with all students every day for thirteen years, kindergarten to high school graduation" (p. 94).

While teacher quality is widely identified as the variable having the strongest impact on student learning, the term "teacher quality" is difficult to define (Goe, 2007; Hodgman, 2012; Kennedy, 2010; Stronge, 2002). Lewis et al. (1999) define teacher quality within two broad categories: teacher qualifications and teaching practices. Teacher qualifications refer to pre-service learning (e.g., postsecondary education, certification) and continued learning (e.g., professional development, mentoring). Teaching practices refer to the actual behaviors and

practices that teachers exhibit in their classrooms. In this study, teacher quality is defined as teaching practices both in the classroom through direct instruction to students and in work outside of the classroom that involves continuous cycles of examination of practice across grade levels, school, and district that enhance individual and collective instructional quality. This study employed a limited definition of teacher quality: daily teaching practice. This permitted a more narrow focus for examining factors perceived to enhance teacher quality from within schools and the district.

It is vital for educational leaders to accommodate for a growth mindset, in order to continuously and consistently improve teacher efficacy over their professional lifespan. This is key to organizational improvement. Teachers and administrators need ongoing opportunities to expand their breadth of professional knowledge, to improve instructional practice, and to build and strengthen their capacity to facilitate the quality instruction that leads to enhanced student learning. In *Leaders of Learning: How District, School and Classroom Leaders Improve Student Achievement,* Dufour and Marzano (2011) contend that the current problems in public education do not stem from an unwillingness of educators to improve. Rather, they claim it is a "lack of collective capacity to promote learning for all students in the existing structures and cultures in which they work" (p. 15). A culture of trust and respect is a prerequisite for educators to engage in reflection that improves performance (Cochran- Smith & Lytle, 1999; Friedman, Galligan, Albano, & O'Connor, 2009). Providing the conditions under which the ongoing development of teacher capacity is sustainable is an important responsibility for school leaders.

Additional research must explore the relationship between teachers and administrators in deciding what types of support are effective in professional practice to help teachers and leaders become more reflective, knowledgeable, and skilled practitioners. We acknowledge the

importance of highlighting teacher voice because it demonstrates how teachers perceive the effectiveness of the professional growth opportunities in which they participate in their school and district. Therefore, we highlight educators' voices in our findings, to provide an important perspective to the current literature on how schools and districts attend to the professional growth needs of the practitioners in the field today. As teachers' success is often measured by student academic performance (Goe, 2007), there is an urgent need to understand the role that school leaders play in supporting and facilitating teacher growth. This is not only a professional need but also an ethical responsibility.

Purpose

The purpose of this study was to explore the important structures within a school or district that foster professional growth. A review of the research regarding the role of leadership in teacher improvement indicates that effective leaders create structures that empower educators (Blasé & Blasé, 2000; Jacobson & Bezzina, 2008; Robinson, Lloyd, & Rowe, 2008; Saunders, Goldenberg, & Gallimore, 2009; York-Barr, Ghere, & Sommerness, 2007).

Such structures are grounded in collaborative learning and engaging educators in ongoing cycles of improvement that include reflection, feedback, specific supports for novice teachers and leadership that is shared between administrators and teachers. Our aim is to provide insights into the factors that transform schools and districts into communities of professional inquiry and practice, that not only meet the needs of teachers throughout their careers, but also afford opportunities to assume leadership roles in shaping professional growth, focused on continual student learning. This study sought to answer one main question and two sub questions:

- How are teachers' professional growth supported by their school and district?

- What district and school-based supports do teachers and leaders perceive to enable teachers to improve teaching practice and professional growth?
- What leadership behaviors and structures at the school and district levels do teachers and leaders perceive as most beneficial to improvement in teacher practice and professional development?

Additionally, each research team member individually examined specific attributes that research suggested or found to impact teacher growth. The individual questions guiding investigation examined the following:

- In what ways do the structures and resources provided by district leaders support school-based collaborative teacher growth?
- What actions do school leaders take to engage teachers in a reflective process?
- How is feedback used to support individual and collective educator development?
- What supports new teacher growth?

This study examined the promotion of professional growth in one Massachusetts district selected for study because of its reputation for both valuing and fostering the continuous improvement of its educators. We hope the outcome of this study offers school leaders insight into ways in which they can foster the ongoing professional learning of educators both individually and collectively within their schools. Through the perceptions of teachers and leaders and the examination of current district structures and professional growth initiatives, researchers sought to identify leadership practices and supports that facilitate both the individual and the collective capacity of educators to create a community of professional learners who share a common focus on student achievement.

Methodology

This research employed a case study design using qualitative methodology. In qualitative research, the focus is on what meaning and understanding participants attribute to their experiences. Data sources included semi-structured interviews, observations and field notes, and district artifacts. Semi-structured interviews lasted for approximately one hour. Participants were asked to complete a participant check to validate transcriptions. Observations were conducted at the Leadership Team Meeting, New Teacher Orientation, and Grade Level Meeting. Data was continually analyzed through an inductive process as research data was gathered. Raw data consisted of interview recordings and transcriptions, field notes from observations, and district artifacts pertaining to communities of practice, new teacher induction, and leadership team meetings. All interviews were recorded by the research team and were transcribed verbatim and coded for further data analysis. Transcripts were then sent to interview participants as a form of "participant verification" to ensure the accuracy of participant responses (Harper & Cole, 2012). The research team used "check-coding" by breaking into pairs and dividing the transcripts between the two teams allowing for discussion which resulted in consensus on data interpretation (Miles & Huberman, 1994, p. 64).

In selecting our research site, the research team considered school districts in Massachusetts matching a predetermined set of criteria. The research team reviewed the sites recommended by our committee. Suggested districts included middle class to upper middle class and suburban to urban cities and towns with a reputation for supporting teacher growth. Our superintendent mentor reached out to the superintendents of these nominated districts to ascertain interest in our study. Based on the information gleaned through this process, the research team selected a district that met the criteria and gave it the name Cordova (pseudonym). Once

preliminary interest was established, the research team met with the superintendent to share our proposed study and to secure agreement to conduct research within the district.

When determining our sample group, researchers asked the superintendent to identify potential participants who had demonstrated openness to growth in their professional practice, including teachers from each level (elementary, middle and high) who displayed the characteristics outlined in the participant selection protocol (See Table 1 for list of participants). From this sampling, the research team selected participants to fulfill the stated criteria. We acknowledge the limitations of asking district leadership and principals for recommendations. The resulting participant group represented a cross section of the district's professional staff that allowed for generalization in analysis.

Table 1
Participant chart by level and role

	Central Office	High School	Middle School	Elementary
Administrator	• Superintendent • Asst. Superintendent	• Principal	• Principal • Asst. Principal	• Principal
Teacher		• ELA • Special Ed. *	• Art • Science • Special Ed.* • ELA	• Music • Kindergarten • Special Ed.

*** This teacher is shared between two levels.**

Technology, including the online software program Dedoose, was used to assist in the coding, storage, organization, management, and analysis during the coding and examination stages of the study. Predetermined codes were applied to elicit the themes or categories in the data. These initial codes provided a starting point for the management of the data. This secondary coding process was conducted using the predetermined codes and helped to identify and describe the themes that emerged from the data, and highlight and categorize similar attitudes, beliefs, and perceptions among all study participants.

Findings and Discussion

The research team's findings highlight the Cordova School District's system-wide vision, culture of psychological safety, work in collaboration, prioritization of time and resources, and emphasis on protocols and facilitation.

A district vision that is articulated through clear expectations and modeling. Research is clear that it is important for district leaders to develop a vision of excellence about teaching, learning, and leading that is shared with all constituents in the learning organization, and that they model the importance of making collaborative decisions that are consistent with that vision (Carter, Glass, & Hord, 1993; Dufour & Marzano, 2011; Huffman & Hipp, 2003; Marzano & Waters, 2009; Ovando & Owen, 2000; Schlechty, 2009). Such a shared vision provides a touchstone from which all other district actions flow (Lambert, 2003). The research team found that the superintendent of Cordova Public Schools effectively communicates a clear vision for the district in his strategic plan. This plan calls for educators to work collaboratively to utilize data gathered from frequent formative and summative assessments in order to examine their instructional practices through the lens of student work and to adjust their teaching accordingly to meet the needs of all learners.

The vision of Cordova is clearly articulated in a one-page, strategic plan, setting forth a theory of action that is shared with all members of the learning community. This vision is consistently communicated and modeled by the superintendent in his work with the leadership team, continually increasing their collective capacity to extend the work in schools and classrooms across the district. Through his consistent use of norms and protocols in leadership team meetings, the superintendent models the strategies that bring the work to life in the district schools. As a result, school level administrators are better able to make meaningful connections

between teacher practice and student learning, as they model the collaborative cycle of inquiry they are fostering among district teachers.

Culture of psychological safety. The research team found that the Cordova School District leaders recognize the importance inherent in their role to foster the conditions necessary for the establishment of a culture of safety throughout the district. Administrators interviewed conveyed their responsibility to facilitate educator inquiries into teaching and learning that lead to teachers' professional growth and greater student achievement in a manner that fosters relational trust among all stakeholders.

The success of the Cordova Schools in creating and maintaining a culture of safety was repeatedly validated from the data. There was significant evidence that supported that administrators' actions are consistent with the monitoring of the school or district culture for the elements of safety and trust to ensure that the collaborative practices that foster educator growth and improved student achievement are not interrupted.

Since collaboration is a main focus in Cordova, the district's work to establish and maintain a culture of psychological safety and relational trust to foster open, honest discussion and inquiry into teaching and learning is to be commended. This finding was supported through the triangulation of data collected from educators, artifacts and observations that were conducted during this research investigation.

Collaboration as the focus for improved instruction. When the research team set out to study the Cordova School District, it was anticipated that collaboration would be evident in the district. However, collaboration quickly emerged as a key focus and initiative in the district, starting with the first observations conducted. The superintendent discussed the importance of collaboration at the new teacher orientation and specifically focused on the four levels of

collaboration described by Judith Warren Little (1990). As the focus for the school district and vision of the superintendent, collaboration is regarded as a "non-negotiable" and means of improving educator practice and ultimately student achievement. Consequently, collaboration in the district exists at all levels and is something that district and building leadership work to promote and facilitate.

In Cordova, organizational change is based on collaboration under the new superintendent. Because working in isolation has been a constant practice within American teaching culture, the shift to a more collaborative professional culture has been difficult for organizations to embrace, but one that Cordova has embraced. The researchers found Communities of Practice (Wenger, 2011) existed at every level and supported collaboration. Structures that allow for collaboration and reflective conversations are seen as "viable way(s) to develop teachers because they are school-based and arise from teachers' daily concerns in the classroom and school" (Ashraf & Rarieya, 2008, p. 278). In Cordova, the structures include time for grade level and departmental meetings, professional development opportunities, and scheduled time to review data or look at student work.

As collaborative "Communities of Practice" (Wenger, 2011) form naturally, an assumption was made that the district selected for our case study had numerous and varied communities of practice. We found communities of practices that were as varied as each individual in the district. There were many formal communities of practice created at each level of the district, specifically grade level and departmental teams and district and building-based leadership teams. While many communities of practice existed, the level of functioning and collaboration in each varied. Additional informal "communities of practice" based on

alliances and interests (e.g. teachers with the same lunch period, teachers newer to the building, or those who have had similar students and have created a support system) also existed in the Cordova School District.

The importance of collaboration in Cordova is a top-down vision and initiative, but one that is shared at all levels. Multiple teachers and administrators discussed the importance of collaborative work in their daily practice, and discussed the structures in place to allow them to collaborate. New teachers discussed working in grade level teams to discuss student work and common assessments. Other teachers examined student achievement data to identify areas of growth to inform curriculum and instruction. Consequently, while teachers are expected to collaborate, principals are the ones responsible to ensure that collaboration is taking place at a level that improves instruction and student learning.

Among the three participant schools, the researchers found that collaboration is occurring most frequently and at its highest level in the middle school. Not far behind, the high school instituted structures to enable collaboration. At more of a developmental level, the target elementary school is working towards more frequent and high-level collaboration.

Prioritizing time and resources for collaboration and professional growth. Data gathered consistently reflected that district and school leaders made a concerted effort to prioritize limited time and resources in order to enhance the district's collaborative structures to drive individual and institutional growth. The district prioritized time and resources in three specific ways. They maximized use of existing structures; a specific example was how the middle school schedule has been maintained to provide for regular collaboration within teacher's weekly schedule. The middle school's collaborative time shifted focus from collaborating in cross-subject teams to a more focused and strategic use of the time working in content area

teams. This shift was in response to a district expectation that collaborative time be utilized to improve instructional practice leading to improved student outcomes. The second way was by enhancing structures within the district. An example of which was the increased number of district-wide early release days, which was viewed as enhancing the opportunities educators have to collaborate for sustained periods of time on the district initiatives of developing and refining standards-based units and common assessments. The third way was by creating new structures within the system. The example most often identified was the compromise made by teachers, building principals, and the superintendent to create a new structure for regular collaboration by department at the high school. While this new structure provided less time for collaboration than the previous structure, some participants felt that the compromise created time that could be more meaningfully used to collaborate and examine their practice. Cordova's prioritization of time and resources to enhance collaboration shows the district has embraced the belief of Stigler and Hiebert (1999) and others that one of the organization's highest priorities should be to restructure the schedule to provide collaborative time, with targeted professional development (Elmore, 2004; Proefriedt & Raywid, 1994).

Cordova has incorporated the beliefs and practices recommended by Stigler and Hiebert (1999) and made the growth of its teachers the core of district and school improvement efforts. Time, resources, and district efforts have focused on supporting the expectation that both teachers and administrators engage in continuous learning in order to provide students increased opportunities for learning and achievement.

Use of protocols and facilitation to increase effectiveness of collaboration. Several teachers and administrators discussed the use of protocols to help frame their collaborative conversations and come to consensus during meeting time. The most prevalent protocol focused

on an inquiry process designed to frame collaborative examination of student work. This implies that the superintendent has made progress towards attaining district reform initiatives. The importance of the use of protocols in the Cordova Public School District can best be explained as the mechanism of choice for providing embedded supports for staff inquiry into teaching and learning, to facilitate collaborative group work around topics, to ensure reflective discussion among educators, to create avenues for communication between teachers and administrators, and ensure efficient use of educators' time.

While protocols and facilitation were found to be valued across all levels, their use varied by level with the elementary school we studied as the least evolved of the three schools. From the data gathered from the three participating schools, we found the middle school to be the most evolved in their use of protocols and the high school to be making steady progress. For the elementary schools to make similar gains, the district needs to provide opportunities for teacher leaders to become skilled facilitators. Since collaboration is a main focus in Cordova, the use of protocols to facilitate discussion and aid in the decision making process is to be commended because it provides key elements for the structure of grade level teams, departments, and groups to work together effectively.

Recommendations

The Cordova School District has many conditions and structures in place, which foster teacher growth, but this case study has uncovered room for improvement through the following recommendations, which address leadership capacity, reflection, feedback, and new teacher support.

Leadership capacity. While the researchers found that the Cordova district prioritizes time and resources for collaboration and professional growth, educators in Cordova consistently

identified a lack of time and resources at the elementary level as an obstacle to effectuating a community of professional learners in an equitable way across the district. DuFour and Marzano (2013) remind us that in order for the PLC process to impact education beyond individual schools, the process must be the driving force behind the entire system. As a system-level PLC, the Cordova District should explore opportunities to increase the frequency, facilitation, and structure of collaborative time at the elementary level so that it aligns with opportunities available to middle and high school teachers. It is recommended that this be accomplished by establishing an inclusive think tank that represents all constituencies in the learning community, with the goal of collaboratively investigating opportunities to develop structural strategies that address the limited amount of collaborative opportunity afforded elementary school teams (DuFour & Eaker, 1998; Dufour et al., 2010).

- Look at the elementary level as a whole, allowing separate elementary schools to work together to develop more effective scheduling of specialists and sharing of scheduling strategies.
- Consider the mutual efforts of all staff members - classroom teachers, specialists, interventionists, and support staff - in creating a schedule that supports a structure of collaborative inquiry.
- Consider creating the schedule from a template organized in small increments (5 minute increments as opposed to 30 minute increments) to allow for flexible blocks of time.
- Prioritize the inclusion of an intervention block for all grade levels, allowing a schedule that provides support staff within the intervention block that allows students

who need more support to gain proficiency to get that support without missing important classroom content.

- Determine the additional staff needed to implement such a schedule.
- Calculate the cost of this staffing.
- Look across the district for existing resources that can potentially contribute to the effort.

Participants across the district identified the development of trained facilitators at each level as significant in the development of effective professional learning teams. At the elementary level, however, training of teachers as facilitators has not taken place, resulting in the need for principals to act as facilitators in this process. DuFour and Marzano (2011) assert that without effective leadership at the team level, the collaborative process is likely to stray away from the issues that are most critical to student learning. Therefore, the researchers recommend that the Cordova district trains facilitators at the elementary level who can skillfully guide the work of collaborative teacher teams in developing their collective capacity to use protocols that focus the examination of student work toward targeted planning of instructional practices that increase student learning. This team level leadership further allows the PLC process to create opportunities for shared leadership across the district, enabling people throughout the organization to take the lead in identifying and solving problems.

Reflective process. Participants acknowledged the importance of reflection but found it challenging to specify how their school or district has supported their reflective development. It is recommended that school and district leaders explicitly teach and utilize the language of reflection in their work. Specifically it is recommended that educators understand: a) that reflective thought is viewed as a continuum from technical or skills-based reflective thought to

critical reflection that considers the impact of education beyond their classroom with specific consideration for ethics and equity in education (Larrivee, 2008b); b) research suggests that reflection done with others, termed reflective dialogue, enhances learning and that there are specific tools that help facilitate reflection for people working in pairs or groups (e.g. collaboration, use of protocols, peer observation, and text based discussions) (Larrivee, 2008b; York-Barr et al., 2006); and, c) the reflective process in many ways mirrors action research with the critical element of reflection being that action results (Day, 2000; Leitch & Day, 2000).

- Many participants identified a desire to increase the number of peer observations, making it a regular part of the reflective process within the district. One building level administrator explained that peer observation is a "growth area" for the district and stated, "It's (peer observation) not an embedded norm in our school." Research identifies peer observation as an approach, which positively impacts teachers' abilities to reflect on instructional practice (Ashraf & Rarieya, 2008; Collet, 2012).
- Because participants expressed differing thoughts on whether peer observation was a tool to which they had access, it is recommended that district leaders review with school leaders how to utilize substitute teachers or other staff to enhance use of peer observations.
- Several teacher participants expressed a concern about limited opportunities to collaborate vertically with subject area teachers; this was especially true for teachers from small departments. It is recommended that the district review the opportunities and structures that allow "non-core" subject area teachers to collaborate with their peers and develop structures that increase opportunities for vertical collaboration and curriculum alignment. This type of structure would empower teachers to work

together in professional communities of inquiry and practice and increase opportunities to develop reflective judgment to monitor and assess current practices and foster collaborative decision-making, resulting in enhanced future practices (Barnett & O'Mahoney, 2006; Darling-Hammond & McLaughlin, 1995; Killeavy & Moloney, 2010; Friedman & Schoen, 2009; Stigler & Hiebert, 1999).

Educator feedback. Many of the District's teacher and administrator participants provided researchers with detailed descriptions of the delivery and use of effective feedback in the form of instructional observations, student achievement data, surveys, or student feedback. The district, in using feedback as a catalyst for igniting individual and collaborative educator reflection that will lead to change in practices and beliefs, has created a culture of ongoing learning in some schools (Mory, 1992; Hattie & Timperley, 2007; Mayfield & Mayfield, 2012). This type of school climate which involves collective learning around the use of feedback supports the concepts outlined in Wenger's concept of Communities of Practice (1998). However, for the District to fully benefit from the effective use of feedback as a means for district-wide educator growth, it is critical that every school leader allocate the necessary time to not only become the instructional leader in their organization, but also model the behavior of continuous learner as well. Therefore, it is suggested that the superintendent place a mandatory, minimum allocated time of two hours each week for instructional observation and feedback for each of the district's administrators. In this way, the school district can continue to develop their positive use of the feedback processes as well as to expand upon the collaborative examination of instructional practices and the development of the collective instructional improvement goals that will lead to increased student achievement across the district.

- Data collected at some of the district sites indicated supervisory use of coaching after

the delivery of feedback to assist in educator understanding of the information and corrective actions that would ensure growth. Coaching can "refine and boost" individual performance (Lemov, Woolway & Yezzi, 2012, p. 16). Because the district appears to have established supportive conditions for this practice in some of the schools, it is probable that the district-wide adoption of instructional supervisor coaching with the delivery of educator feedback will help to facilitate the continual examination and improvement in teaching and learning (Killion, Harrison, Bryan, & Clifton, 2012). To circumvent any potential barriers for the effective use of feedback at the Cordova School District, the superintendent should consider developing a method that would ensure the consistent use of supervisory coaching along with the delivery of formal and informal educator feedback. To ensure that teachers are receptive to the feedback and have the available supports needed to improve their instructional practices, all supervisors of instruction should be trained in effective coaching methods and the positive use of collaborative dialogue prior to pairing this support with the delivery of educator feedback.

- Data collected did not indicate that the district was using a feedback resource provided by the Massachusetts Department of Education, EDWIN Analytics, either at the teacher or school leader level. The delivery of feedback to teachers in the form of state assessment data is currently in control of central office administrators. In order for teachers to focus on feedback and become pro-active in their behavior to seek feedback as well as use student data effectively, they must have access to the data source (Feeney, 2007). Therefore, it is suggested that the district consider widening the access and use of EDWIN Analytics through opportunities to train all building

leaders in the use of this system. The district should also develop an individual professional development plan that would allow for each administrator to become the EDWIN System "go to" person for their building as well as the embedded staff trainer for this feedback data resource.

New teacher support. The Cordova School District provides important supports for new teachers including informal and formal feedback, grade level or department meetings, and discussions between new teachers and more veteran teachers. They also have district-level mentor coordinators who hold bi-weekly meetings for new teachers and act as mentors for all new teachers. This case study has found areas for improvement and makes the following recommendations to improve new teacher support:

- Given research that supports one-on-one mentor programs, Cordova should establish a formal mentoring program. Assigning a mentor teacher to a new teacher provides an immediate "go to" person for questions, feedback, and support. This can be accomplished in the context of the collaborative atmosphere and joint work already present because mentors and protégés will still participate in all regular meetings such as department and grade level teams. While retaining the district-based mentor coordinators to mentor new teachers and plan the district-wide induction program is somewhat effective, assigning a one-on-one mentor to each new teacher would ensure that teachers have a formally recognized mentor in place.
- Formalized meeting times should be built into the schedule to provide more structure to allow for exchanges between new teachers and a mentor. As new teachers are not assigned to mentor teachers currently, mentor coordinators serve as mentors for multiple new teachers and other teachers take on the role organically and informally

as relationships develop at the beginning of the school year through collaboration and discussion. The elementary level experiences some structural conflicts in assigning only one mentor coordinator, as there are multiple elementary schools in the district.

- If the mentor coordinator model is continued, coordinators should have a lighter teaching load so they can travel between schools to check in with one-on-one mentors and new teachers. Otherwise, the district should assign a mentor coordinator to each school where new teachers work. This assignment should remain fluid, as not every school will have a new teacher each year.
- The district's new teacher support protocol does not formally involve principals, and currently principals can decide when and how much to be involved in supporting new teachers. Although concerns are brought to the mentor/coordinator who then addresses the concerns with the new teacher, a formal expectation should require principals to work with new teachers and function as an instructional leader. This could involve instructional modeling, occasional check-in meetings, or informal observations. This will help the principal to better support new teachers and ensure their growth as practitioners.

Moving forward in Cordova.

- One area that the data collection did not illuminate was when and how the district monitors and evaluates implementation of district expectations at the building level through a mechanism that allows for continuous cycles of review for each initiative. This review process should provide for the immediate needs of those implementing the initiative based on feedback and also validate the progress and effectiveness of district initiatives. If there are no such mechanisms currently in place, it is recommended that structures be established to examine the district initiatives by establishing a committee that includes stakeholders from all levels of the district.
- Finally, it is recommended that district leaders attend to issues of succession planning as participants perceived that those schools in the district with stable school leadership provided greater opportunities for teachers to engage in the reflective process. Fullan (2001) and others have identified leadership succession as a critical factor in initiative sustainability (Hargreaves & Fink, 2003; Jacobson & Bezzina, 2008). A comprehensive succession plan would include training and mentoring for individuals who would have the social and leadership capacity to carry on the vision and mission of the district as well as build and maintain the healthy culture that has already been established.

Conclusion

Interested in the collaborative process that takes place in high performing districts that foster and support educator growth, the research team embarked on the study in Cordova to determine the perceptions among district personnel regarding teacher growth in the district. The study's findings highlight the importance of a district vision that provides the support and

structures for collaboration, which in turn leads to educator growth. Although creating a psychologically safe environment to foster and support collaboration through relationship building and joint work served as the major group finding, individual studies drilled down more deeply into the data to examine specific functions, structures, and supports for professional growth in the district. Individual sections examined the relationships, structures, and modeling that supports new teachers; the type of reflective questions and processes employed by district leaders with teachers; the leadership vision and use of professional learning communities (PLC) to build the culture of collaboration; and the feedback processes employed to encourage teacher growth. As the study's findings highlight, the Cordova School District has created a safe collaborative environment with strong leadership and a reflective stance that uses various forms of feedback to support teachers, including those new to the procession. The goal of this study was to inform practice through knowledge and insight with the hope that school districts and leaders can make improvements to foster teacher professional growth through the implementation of a cohesive vision, structures, and leadership behaviors.

CHAPTER 1

INTRODUCTION[1]

Research identifies teacher quality as one of the most influential factors affecting student achievement (Darling-Hammond, 1997; Ganley, Quintanar, & Loop, 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002; 2010). Yet, a critical challenge for those committed to improving teacher effectiveness is that researchers, policymakers, and practitioners continue to struggle to define teacher quality (Robertson, 2006; Stigler & Hiebert, 1999; Tsui, 2009; NCLB, 2001). Additionally, teachers and leaders often lack a collective capacity to sustain teacher development that is continuous from day-to-day and year-to-year (Day 2000; Drago-Severson, 2007; Robinson, Lloyd, & Rowe, 2008; Saunders, Goldenberg, & Gallimore, 2009; Stigler & Hiebert, 1999; Stronge, 2010).

Teacher quality is essential to continuous student growth. (Darling-Hammond, 1997; Ganley, Quintanar, & Loop, 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002; 2010). Based on findings derived from several studies of teachers' measurable impact on student achievement, James Stronge (2010) asserts "…the bottom-line findings of all these value-added studies are that teachers matter, and teacher quality is the most significant schooling factor impacting student learning" (p. 5). Research on the cumulative effects of teachers on student achievement (Sanders & Rivers, 1996) show them to be both "additive and cumulative over grade levels, with little or no compensatory effects" (p. 1). As Stronge (2010) points out, "…it is imperative that we place quality teachers in classrooms with all students every day for thirteen years, kindergarten to high school graduation" (p. 94).

[1] This chapter was jointly written by the authors listed and reflects the team approach of this project: Telena S. Imel, Philip McManus II, Maryanne Ryan-Palmer and Christine M. Panarese

While teacher quality is widely identified as the variable having the strongest impact on student learning, the term "teacher quality" is difficult to define (Goe, 2007; Hodgman, 2012; Kennedy, 2010; Stronge, 2002). Lewis et al. (1999) define teacher quality within two broad categories: teacher qualifications and teaching practices. Teacher qualifications refer to pre-service learning (e.g., postsecondary education, certification) and continued learning (e.g., professional development, mentoring). Teaching practices refers to the actual behaviors and practices that teachers exhibit in their classrooms. Goe (2007) describes teacher quality as "…a complex phenomenon for which no general and absolute agreement exists concerning an appropriate and comprehensive definition" (p. 8). She distinguishes between *teacher* quality, which connotes how inputs such as teacher certification, level of education, and performance on teacher tests predict success in the classroom; and *teaching* quality, which refers to the behaviors of classroom teachers that intimate quality. She asserts that, "[often] the two definitions are linked or even conflated, so that there is an assumption that *teacher* quality equates *teaching* quality, or that teaching *quality* is an outcome of teacher *quality"* (p. 8). In this study, teacher quality is defined as teaching practices both in the classroom through direct instruction to students, and work outside of the classroom that involves continuous cycles of examination of practice across grade levels, school and district that enhance individual and collective instructional quality. A limited definition of teacher quality, which focuses on daily teaching practice, was selected to allow for a narrowly focused examination of which factors are perceived to enhance teacher quality from within their own school and district.

It is vital for educational leaders to accommodate for a growth mindset, providing for an ever-evolving effectiveness of teachers in a continuous and consistent manner. This is key to organizational improvement. Teachers and administrators need consistent opportunities to

expand their breadth of professional knowledge, while continuously improving their instructional practice, and building and strengthening their capacity to facilitate the quality instruction that leads to improved student learning. In *Leaders of Learning: How District, School and Classroom Leaders Improve Student Achievement,* Dufour and Marzano (2011) contend that the current problems in public education do not stem from an unwillingness of educators to improve. Rather, they claim it is a "lack of collective capacity to promote learning for all students in the existing structures and cultures in which they work" (p. 15). These authors highlight the importance of school leaders and policymakers understanding that "school improvement means people improvement" (Dufour & Marzano, 2011, p. 15). In Stigler and Hiebert's (1999) international study of mathematics teachers, they concluded that "the professional teacher is not someone who simply copies what others have done, but is, rather, one who reflects on and improves on what others have done, working to understand the basis of these improvements" (p. 166). A culture of trust and respect is a prerequisite for educators to engage in reflection that improves performance (Cochran- Smith, & Lytle, 1999; Friedman, Galligan, Albano, & O'Connor, 2009). Providing the conditions under which the ongoing development of teacher capacity is sustainable is an important responsibility for school leaders.

Research on the role of educational leaders, specifically the school principal's role in teacher growth, is compelling. McLaughlin and Talbert (2006) observe that the principal is "in a key strategic position to promote or inhibit the development of a teacher learning community in their school...school administrators set the stage and conditions for starting and sustaining the community development process" (p. 56). The principal plays a major role in any change initiative within a school. Hord and Sommers (2008) emphasize that, "…it is clear that the role of principal is paramount in any endeavor to change pedagogical practice, adopt new curricula,

reshape the school's culture and climate, or take on other improvements" (p. 6). With this in mind, it is evident that school and district leaders must possess the capacity to create a collaborative school culture, in which collective and individual educator learning leads to continual cycles of instructional improvement that results in student success (Cranston, 2009; Hipp & Huffman, 2000; Hord, 1997; Lambert, 1998; Louis, Leithwood, Wahlstrom, & Anderson, 2010; Reeves, 2006; Spillane, Halverson, & Diamond, 2001). The principal is a critical factor in developing the capacity of staff to engage effectively in their work as a community of professional learners.

However, school leaders do not work alone. District leadership has also been linked to teacher and school improvement as reflected by student achievement (Dufour & Marzano, 2011; Marzano & Waters, 2009; Schlechty, 2009; Spillane, 2005). The superintendent has been found to make an important impact on the potential for ongoing, student improvement by setting district-wide expectations for change and improvement in educational practice (Marzano & Waters, 2009). In their study into the "secrets of successful superintendents," Ovando & Owen (2000) found that, "[b]y virtue of their visibility and positional power…superintendents use[d] their platform to espouse the importance of academic excellence, provide resources, and create a framework" that develops and provides tools and methods to directly impact instruction (p. 80).

The purpose of this study was to examine how one district supports and facilitates teacher growth and the role of leadership in the process. While a body of literature exists that speaks to the role of leadership in school improvement, a critical need exists for school leaders to understand more deeply the structures and supports that facilitate teacher growth. Additional research must explore the relationship between teachers and administrators in deciding which types of support are effective in professional practice and help them become more reflective,

knowledgeable, and skilled practitioners. Researchers acknowledge the importance of highlighting teacher voice because it demonstrates how teachers perceive the professional growth opportunities in which they participate in their school and district. Researchers will highlight educators' voices in our findings, providing an important perspective to the current literature on how schools and districts attend to the professional growth needs of the practitioners in the field today. As a teacher's success is often measured against student academic performance (Goe & Stickler, 2008), there is an urgent need to understand the role that school leaders play in supporting and facilitating teacher growth. This is not only a professional need but also an ethical responsibility.

Conceptual Framework

Wenger's scholarship espouses the belief that "communities of practice" (Lave & Wenger 1991), in which community members utilize a social process to engage in new learning, are important to any organization's functioning, especially where knowledge attainment is a critical asset. School districts are complex organizations that rely significantly on relationships to improve practice and effectively meet the social and academic needs of students. Wenger (1998b) states, "as a locus of engagement in action, interpersonal relations, shared knowledge, and negotiation of enterprises, communities hold the key to real transformation-the kind that has real effects on people's lives" (p. 85). As facilitating and supporting teacher growth is both social and cyclical, Wenger's scholarship on communities of practice and learning creates a framework through which the research team's collective and individual studies can be examined.

A community of practice is defined in three dimensions: (1) what it is about; (2) how it functions; and, (3) what capabilities it has produced (Wenger, 1998a, 1998b). A school or district can be defined as a community of practice that has the "joint enterprise" (1998b, p. 77) of

educating children. How a school or district functions relies on the quality of relationships of the members at all levels within the organization and the willingness of these members to engage in their work collectively. Individual and organizational functioning (or practice) can be enhanced or hindered by these relationships and the culture of the community as demonstrated through its norms and values and effective communities of practice are recognized by a shared repertoire of recourses, routines and practices. Wenger (2000) defines this iterative process of learning as the "interplay of learning and experience" (p. 3). Therefore, school districts, as communities of practice, must live in a cycle of inquiry that leads to reflective judgment producing and improving organizational routines, structures, and resources.

Based on this understanding of social learning, collaboration and communities of practice provided by these scholars, this qualitative case study (Yin, 2009) was conducted with the following assumptions: a) teachers' beliefs about continuous growth and improvement have a strong connection to the effectiveness of their instructional practices; b) teaching practice can and should improve throughout an educator's career; and, c) effective school leaders are those who have both the personal, relational competence, and political will to build capacity in their staff by providing the conditions and structures needed to allow for teachers to engage in cycles of learning that result in teacher growth. Recognizing that this work is complex and labor intensive, researchers argue that these assumptions are more likely to be realized in schools or districts that function as communities of practice, where structures and routines result in educators coming together regularly to collectively reflect upon and develop their practice.

This study examined the promotion of professional growth in one Massachusetts district, which was selected for study because of its reputation of both valuing and fostering the continuous improvement of its educators. The researchers hope the outcomes of this study offer

school leaders insight into ways in which they can foster the ongoing professional learning of educators both individually and collectively within their schools. Through analyzing the perceptions of teachers and leaders and the examination of current district structures and professional growth initiatives, researchers sought to identify the leadership practices and supports that facilitate both the individual and the collective capacity of educators to create a community of professional learners who share a common focus on student achievement. This inquiry was designed to answer the central research question: How are teachers' professional growth supported by their school and district? The sub-questions serve to look deeper into what promotes or hinders teachers' continuous growth:

1. What district and school-based supports do teachers and leaders perceive to enable teachers to improve teaching practice and professional growth?
2. What leadership behaviors and structures at the school and district levels do teachers and leaders perceive as most beneficial to improvement in teacher practice and professional development?

In this instrumental qualitative case study (Creswell, 2012; Merriam, 2009) the research team utilized common methodology to answer research questions. Additionally, each research team member individually examined specific attributes that research either suggested or found to have an impact on teacher growth. The individual questions guiding investigation examined:

- In what ways do the structures and resources provided by district leaders support school-based collaborative teacher growth?
- What actions do school leaders take to engage teachers in a reflective process?
- How is feedback used to support individual and collective educator development?
- What supports new teacher growth?

As researchers, the purpose of this study was to explore the important structures within a school or district that foster professional growth. A review of the research regarding the role of leadership in teacher improvement indicates that effective leaders create structures that empower educators (Blasé & Blasé, 2000; Jacobson & Bezzina, 2008; Robinson, Lloyd, & Rowe, 2008; Saunders, Goldenberg, & Gallimore, 2009; York-Barr, Ghere & Sommerness, 2007). Such structures are grounded in collaborative learning, engaging educators in ongoing cycles of improvement that include reflection, feedback, specific supports for novice teachers and leadership that is shared between administrators and teachers. The researcher's aim in this study was to provide insights into the factors that transform schools and districts into communities of professional inquiry and practice that meet the needs of teachers throughout their careers, by affording them opportunities to assume a leading role in shaping their own professional growth.

Definitions of Important Terms

Terms associated with teacher quality and professional growth can vary greatly when defined or understood by practitioners and researchers. The research team posed the following working definitions of important terms and phrases to provide clarity, consistency, and a common language throughout the study.

Teacher growth/teacher improvement: Teacher growth refers to the ongoing, positive development of teacher practices in three areas: 1) content and context knowledge; 2) pedagogical skills; and, 3) dispositions that impact teaching quality.

Teacher Quality: Teacher quality encompasses two key elements. The first is related to teacher certification, level of education, and performance on teacher tests, and the second relates to teacher behaviors and practices in the classroom. This study will focus on the second element or daily teacher practice.

Community of Professional Learners and Professional Learning Community (PLC): These terms will be used interchangeably for this study. The working definition for this research is taken from a review of the literature conducted by Stoll et al. (2006). In proposing this definition, Stoll et al. (2006) describe a broad international consensus regarding the meaning of PLC as "…a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way; operating as a collective enterprise" (p. 223).

Reflection: A way of thinking in which an individual and/or group focused on growth and improvement works to understand a behavior, event, or response through inquiry and review of internal and external evidence resulting in action (Blase & Blase, 2000; Schön, 1983, 1987; York-Barr, Sommers, Ghere, & Montie, 2006).

Reflective Process: A learning process in which an individual and/or group focused on growth and improvement utilizes a purposive way of thinking to understand a past or current behavior, event, or response through systematic inquiry and evaluation of internal and external evidence resulting in action and learning (Barnett & O'Mahoney, 2006; Blase & Blase, 2000; York-Barr et al., 2006).

Reflective Stance: A professional self-awareness in which a person regularly and systematically interrogates and weighs evidence and clarifies goals (Collet, 2012).

Induction: A program of activities designed to help orient new teachers to the classroom and the district. One of the goals of induction is teacher formation and retention.

Mentor: St. George and Robinson (2011) define "*mentor* as an experienced teacher who assists, coaches, consults with, collaborates with, and guides new teachers to support their transition from novices to successful educators committed to the profession" (p. 25).

New Teacher Support: Programs and structures focused on encouraging and backing new teachers (in their first one to three years) through professional development, mentor relationships, district level courses, feedback from the coordinating mentor and principal, as well as co-planning time, critical reflection and collaboration.

Retention: The ability of schools and school districts to keep new teachers from straying to other schools or leaving the profession as a whole.

Feedback: For the purpose of this research, feedback is defined as any type of information about performance or progress towards a goal that is transferred from one individual or group to another individual or group (Hattie & Timperley, 2007).

In order for educational leaders to afford educators consistent opportunities essential to expand breadth of professional knowledge, while continuously improving instructional practice and building capacity to facilitate the quality instruction that leads to improved student learning, they must be clear about the ways that promote a perpetual cycle of learning within their schools that leads to student success. The aim of this study is to provide insights into the factors that transform schools and districts into communities of professional inquiry and practice that meet the needs of teachers throughout their careers, by examining the ways in which one district supports and facilitates such teacher growth, and the role of leadership in the process.

CHAPTER 2

LITERATURE REVIEW[2]

This review of the literature begins with a brief conceptual and theoretical orientation section and is then divided into three sections. The first section of the literature review examines the need for, importance of, and challenges of defining teacher quality. The second and largest section of the literature review details research about effective professional development and the ways professional development may facilitate teacher growth. This section begins with a broad overview of what may enhance or hinder professional growth. The overview is followed by an examination of specific research-based practices and structures, which have been selected by the research team to be examined collectively or individually. The selected practices and structures are professional learning communities, reflection, feedback, and new teacher supports. The final section of the literature review looks at the role of leaders in supporting teacher growth and the role the Massachusetts Educator Evaluation System plays in the state and local context of this study.

Conceptual Overview

This group investigation into teacher quality is framed by Wenger's (1998b) "Communities of Practice." Because it was found that the Cordova superintendent used the levels of collaboration proposed by Judith Warren Little (1990) to frame district improvement initiatives, an understanding of this work became interwoven within this study.

[2] This chapter was jointly written by the authors listed and reflects the team approach of this project: Telena S. Imel, Philip McManus II, Maryanne Ryan-Palmer and Christine M. Panarese

Wenger's (2011) concept regarding communities of practice focuses on the abilities of organizations to work collectively toward a common goal, and it encompasses multiple practices. Wenger (2011) emphasizes ways in which communities of practice function and collaborate:

Figure 1. Qualities Found in Communities of Practice

Problem solving	"Can we work on this design and brainstorm some ideas; I'm stuck."
Requests for information	"Where can I find the code to connect to the server?"
Seeking experience	"Has anyone dealt with a customer in this situation?"
Reusing assets	"I have a proposal for a local area network I wrote for a client last year. I can send it to you and you can easily tweak it for this new client."
Coordination and synergy	"Can we combine our purchases of solvent to achieve bulk discounts?"
Discussing developments	"What do you think of the new CAD system? Does it really help?"
Documentation projects	"We have faced this problem five times now. Let us write it down once and for all."
Visits	"Can we come and see your after-school program? We need to establish one in our city."
Mapping knowledge and identifying gaps	"Who knows what, and what are we missing? What other groups should we connect with?"

Figure 1. What Do Communities of Practice Look Like? Communities of practice: A brief introduction. Wenger (2011) p. 1. Retrieved from: http://wenger-trayner.com/theory/

As a basis for the study, the research team looked at Wenger's concept about how large organizations form a community that can work together to accomplish a broad goal, but also important daily tasks. Wenger (2011) describes a community of practice this way: "Members of a community of practice are practitioners. They develop a shared repertoire of resources, tools, experiences, stories, ways of addressing recurring problems—in short a shared practice" (p. 2).

Judith Warren Little's work on collaboration was introduced to the research group by administrators in the case study district "Cordova" (a pseudonym). Little (1990) discusses the importance of collaboration in schools. She examined the degrees of collaboration between teachers, specifically looking at teachers moving from independence to interdependence. Little found that forms of collaboration varied "in the degree to which they induce mutual obligation, expose the work of each person to the scrutiny of others, and call for, tolerate, or reward initiative in matters of curriculum and instruction" (p. 512). Little outlines fours levels of collaboration: (a) scanning and storytelling; (b) helping and assisting; (c) sharing; and, (d) participating in joint work. At the highest level, Little (1990) found that joint work among teachers improved instruction and fostered true understanding and collegiality among colleagues. She argues that joint work rests "on shared responsibility for the work of the teaching" and involves "truly collective action… to decide on a set of basic priorities that in turn guide the independent choices of individual teachers" (p. 519). Little (1990) maintains that "the greater the prospect for mutual influence among teachers, the more consequential becomes the substance of teachers' joint work: the beliefs teachers hold and their substantive knowledge of subject and student" (p. 523). Little's findings maintain that joint work,

where all participants decide on a set of priorities to guide their teaching, is the goal for collaboration, and that teachers should work toward that goal.

Little's research focuses on educator "professional development and professional community as the foundation for a learning-centered school" (Little, 2006, p. 1). The work on collaboration completed by Little (2006) focuses and frames the goals for educator learning:

> (a) Making headway on the school's central goals, priorities or problems; (b) building knowledge, skill, and disposition to teach to high standards; (c) cultivating strong professional community conductive to learning and improvement; and, (d) sustaining teachers' commitment to teaching (Little, 2006, p. 2).

By integrating Little's progression of effective collaborative behaviors with Wenger's concept of communities of practice for institutional learning and growth, researchers were able to analyze and frame this study. The researchers focused specifically on the characteristics of the social learning of educators that would have the most impact on positive student achievement outcomes (Timperley, Wilson, Barrar & Fung, 2007).

Need for and Importance of Ongoing Teacher Improvement

Teacher quality is one of the most influential factors affecting student achievement (Darling-Hammond, 1997; Ganley et al., 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002). Sanders, Wright, and Horn (1997) observed that the most important factor that impacts student learning is the teacher. Furthermore, Sanders and Rivers (1996) found that the impact of teacher effectiveness on student

achievement is both additive and cumulative across grade levels. As Robert Marzano (2003) points out, "…seemingly more can be done to improve education by improving the effectiveness of teachers than by any other single factor" (p. 72).

Developing and maintaining effectiveness in teaching is a complex, integrated, ongoing process. Teachers are called to be lifelong learners, who consistently increase their knowledge and skills in order to assure a positive impact on social, emotional, and academic student achievement. To meet this challenge, teachers need consistent opportunities to expand their breadth of professional knowledge, while continuously improving their instructional practice, which builds and strengthens their capacity to improve student outcomes. While teaching lies within the control of teachers, the systems within which they teach often work against them. Research indicates that effective teaching is best supported by critical inquiry and reflective practice that is embedded within the culture of the school and linked to classroom instructional practices. This requires a structure and school culture that empowers teachers to work together in professional communities of inquiry and practice, utilizing reflective judgment to monitor and assess their past and present practices in order to make better future decisions (Barnett & O'Mahoney, 2006; Darling-Hammond & McLaughlin, 1995; Killeavy & Moloney, 2010; Friedman & Schoen, 2009; Stigler & Hiebert, 1999). Rather than focusing on controlling or fixing teachers, policy and professional development that supports teachers in developing the capacity to take responsibility for student learning must provide opportunities for learning that engages teachers as learners as well as teachers, allowing them to struggle with the uncertainties that accompany each role (Darling-Hammond & McLaughlin, 1995). Thus, developing a culture of continuous

inquiry for all educators will facilitate the ongoing improvement of the organization and support individual and collective teacher growth.

The No Child Left Behind Act of 2001 (NCLB) addressed the importance of teacher quality as a means to address issues of student achievement, school accountability, and school reform. Improved student achievement is promoted through quality initiatives such as school reform models that engage teachers as well as school leaders in improving practice, and "*capacity-building through on-going professional development*" (NCLB, 2001). Building capacity is more than teaching a set of skills or providing the proper materials for a lesson – although both are important. The development of teacher capacity connotes a broader empowerment among teachers to continually expand their own knowledge and pedagogical skills toward increased effectiveness.

> Capacity is a complex blend of motivation, skill, positive learning, organizational conditions and culture, and infrastructure of support. Capacity gives individuals, groups, whole school communities, and school systems the power to get involved in and sustain learning over time. (Stoll et al., 2006, p. 221)

Individual capacity refers to the knowledge, skills, and dispositions of individual teachers in a school, while collective or interpersonal capacity is associated with the quality of collaboration among members of the teaching staff (Williams, Brien, Sprague, & Sullivan, 2008). Building individual and collective capacity of teachers to continuously improve practice is a critical responsibility of teachers and educational leaders, public policy advisors, and legislators.

Challenge of defining teacher quality. Although researchers agree that teacher

quality greatly impacts student learning (Darling-Hammond, 1997; Ganley, Quintanar, & Loop, 2007; Marzano, 2003; Marzano, Pickering, & Pollock, 2005; Stronge, 2002; 2010), the term *teacher quality* has become so widely used that it lacks specific meaning. There is a growing concern that some research in leadership views teacher quality through a deficit lens, assuming that the quality of our teaching force needs improvement. In this study, teacher quality is situated within the context of teacher learning across the professional lifespan, recognizing that teachers, like other professionals, must continue to expand and deepen the breadth and depth of subject matter, pedagogical, pedagogical content, and pedagogical context knowledge in order to serve an increasingly diverse population of students in a global society. It is important to note that professional learning across the lifespan also applies to leadership. Educational leaders can enhance leadership practice in order to increase teachers' capacity to engage in a professional life that fosters lifelong learning and ongoing improvement of practice, by providing continued opportunities and resources for professional growth that are embedded within the structure of all educators' daily work. Researchers in this study seek to illustrate the ways in which educational leaders do this effectively.

Researchers use the term teacher quality to refer to teaching practices (the actual teaching that occurs in classrooms) (Lewis et al., 1999; Kennedy, 2010), teacher preparation and qualifications, including pre-service learning, teaching assignment, continued learning, and general background (Lewis et al., 1999; Goldhaber, 2002; Stronge, 2007, 2010); and the environments in which teachers work (Goldhaber, 2002; Kennedy, 2010; King-Rice, 2003). Stronge (2007, 2010) situates teacher quality within a framework of six teacher behaviors that include: 1) prerequisites for effective teaching; 2)

teacher dispositions; 3) classroom management; 4) planning for instruction; 5) implementing instruction; and, 6) assessing student progress. As shown in figure 2, these variables are combined into two major categories: teacher background qualities and teacher skills and practices:

Figure 2. A Framework for Teacher Effectiveness

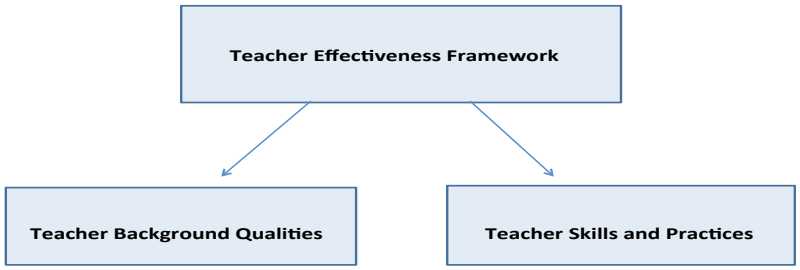

Figure 2: Stronge uses the two major categories - teacher background qualities and teacher skills and practices as the organizing framework for summarizing literature on the connection between teacher quality and student achievement. (Stronge, 2010, p. 48).

Researchers (Goldhaber, 2002; Lewis et al., 1999; Kennedy, 2010; King-Rice, 2003; Stronge, 2007, 2010) agree that little of the variation in teachers' ability to improve student achievement can be attributed to observable characteristics, such as academic degree or teaching experience; but rather that unobserved aspects of teacher quality such as dispositions, attitudes, and classroom practices were factors to be considered. While individual characteristics of teacher disposition such as a respectful and caring nature, teacher efficacy, and motivation and enthusiasm to teach did not predict teacher effectiveness, the combination of teacher professional background qualities and teacher disposition allowed for more informative and accurate correlation to student achievement (Jacob, Kane, Rockoff & Staiger, 2009 as cited by Stronge, 2010). King-Rice (2003) emphasizes the interactive nature of teacher qualities and qualifications, adding complexity to the measurement of specific qualities of teacher effectiveness. Novice

teachers experience a variety of pre-service training backgrounds, therefore strong teacher induction programs serve to develop a shared understand of professional practice within an organization. Professional development programs within an organization function to enhance teaching and contribute to teacher growth.

Impact of professional development on teacher practice. Most practitioners and researchers agree that there are no simple scenarios or programs that result in drastically increased teacher improvement as measured by increased student achievement (Darling- Hammond, 2010; Elmore, 2004; Saunders, Goldenberg, & Gallimore, 2009). There is a growing body of research that supports the belief that "organizational change begins with individuals" (Osterman & Kottkamp, 2004, p. 1). While change begins with individuals, these individuals are more likely to change in meaningful and lasting ways when they work and learn collaboratively in communities of practice (Blasé & Blasé, 2000; Chi Keung, 2009; Darling-Hammond, 2010; Wenger, 1998b). York-Barr et al. (2006) observe that, "learning is the foundation of individual and organizational improvement" (p. 1). Spillane (2005) explains that utilizing the leadership practices (not necessarily utilized by administrators) of "structures, routines and tools" (p. 147) within the context of a specific situation allows people to take action in improving individual and collective growth.

In *The Teaching Gap*, Stigler and Hiebert (1999) state that teaching is not just a skill, it's "a complex, cultural activity" (p. 109). Because working in isolation has been a constant practice within American teaching culture, the shift to a more collaborative professional culture has been difficult for organizations to embrace, which may explain why many school reform initiatives (i.e. professional development) have been

unsuccessful in significantly impacting teacher practice or student achievement. Stigler and Hiebert recommend that teacher improvement efforts in the United States learn from Japan's lesson study model, which focuses on job-embedded, collaborative work where the "team" works on improving one lesson at a time over a period of weeks and up to a year. The authors explain that in the United States, teachers are assumed to be competent once they have completed their teacher training, whereas Japan does not make this assumption. Professional development is considered a critical component of the vocation and is scheduled into the teacher workday. They observe, "if you want to improve teaching, the most effective place to do so is in the context of classroom lessons" (p. 111).

A number of researchers have found that collaboration is essential to organizational change and improvement (Blasé & Blasé, 2000; Chi Keung, 2009; Frederiksen & White; 1997; Gallimore et al., 2009; Jacobson & Bezzina; 2008; York-Barr, Ghere, & Sommerness, 2007). "Collaboration includes continuing interactions about effective teaching methods, plus observation of one another's classrooms. These activities help teachers reflect on their own practice and in identifying things that can be improved" (Stigler & Hiebert, 1999, p. 124). Leaders are important to ensuring that effective structures are in place to support teachers in these endeavors and fostering and nurturing a culture that allows educators to learn in a safe, supportive environment. Stigler and Hiebert argue that, "we must empower teachers to be the leaders in this process" (p. 127). Just as teachers model the gradual release of responsibility with their students to foster independent learning, skillful leaders employ the same strategies to build teacher capacity and efficacy.

Elmore (2004) speaks to both the importance and challenge of transforming American schools; he suggests school leaders empower and create structures of shared accountability for educators through the development of professional learning communities of critical inquiry and practice, thus fostering the growth of educators in our nation's schools. A challenge for many teachers and leaders working in today's schools is that they were not hired or prepared to do this type of collaborative work. Elmore argues that the structures of schools are often not designed for teachers and leaders to engage in professional dialogue with colleagues based on student achievement; therefore leaders must create a culture of trust where critical reflection and feedback are seen as essential to enhancing the overall organization.

Structures that allow for collaboration and reflective conversations are seen as "viable way(s) to develop teachers because they are school-based and arise from teachers' daily concerns in the classroom and school" (Ashraf & Rarieya, 2008, p. 278). Researchers caution that both learning and change of instructional practice are "gradual process(es) and labor intensive as (they) revolve around teachers' knowledge, skills, and attitudes" (Ashraraf & Rarieya, 2008, p. 278; Stigler & Hiebert, 1999; Valli, 1997).

Stigler and Hiebert (1999) claim that "the star teachers of the 21st century will be teachers who work every day to improve teaching – not only their own, but that of the whole profession" (p. 179). This is a fundamental change to how most schools currently operate and will require district and school leaders to examine and restructure their current schedule in order to provide collaborative time, with targeted professional development as one of the organization's highest priorities. This research team examined the ways in which one Massachusetts school district is responding to these challenges.

Elements of effective professional development. Effective professional development is sustained, in-depth, and embedded in the daily work of educators (Blankstein, 2011; Darling- Hammond, Wei, Andree, Richardson, & Orphanos, 2009; Garet, Porter, Desimone, Berman, & Yoon, 2001; Stronge, 2010). Archibald, Coggshall, Croft, and Goe (2011) identify five characteristics that high-quality professional development exhibits: (a) alignment with school goals, state and district standards and assessments; (b) focus on core content and modeling teaching strategies; (c) opportunities for learning new teaching strategies; (d) collaboration among teachers; and, (e) embedded follow-up and feedback. Elmore (2004) recommends that professional development be designed to build the capacity of teachers by working "collectively on problems of practice" (p. 96). Elmore makes this recommendation based on the assumption that "learning is essentially a collaborative rather than an individual activity – that educators learn more powerfully in concert with others who are struggling with the same problems" (p. 96). He believes that this type of shift in practice from working and learning in isolation to working and learning collaboratively requires the administrators to "play a much more active role in the provision and improvement of instruction" (p. 107). The role and importance of administrators in teacher growth will be addressed in latter sections of this review.

Proefriedt and Raywid (1994) advocate for teachers not only to work collaboratively in teams but also to enhance personal growth by visiting each other's classrooms. "Teachers must find colleagues from whom they can learn, whom they can trust to be supportive and honestly critical, and who themselves are open to new perspectives on their teaching" (p. 129). Osterman and Kottkamp (2004) make the case

that professional development designed to enhance reflective practice can result in substantial changes in teacher practice. They note that, “reflective practice engages individuals and groups in a critical analysis of problems and examines how individual and collective ideas and action patterns help to cause or maintain these patterns. To engage in reflective practice requires trust and openness of communication” (p. 66). A number of other researchers have also found that trust and school culture enhance or hinder the effectiveness of school-based professional development efforts (Darling-Hammond et al., 2009; Elmore, 2004; Hargreaves & Fink, 2003; York-Barr et al., 2006).

Challenges to teacher growth. Policymakers, researchers, and practitioners struggle with questions of how to improve teacher quality because of the complexity and time needed to change teacher practice. Research supports that collaborative efforts by educators to examine practice are more likely to succeed (Proefriedt & Raywid, 1994). Elmore (2004) elaborates on some of the challenges that face teachers and administrators in America’s public schools. "The workday of teachers is still designed around the expectation that teachers’ work is composed exclusively of delivering content to students, not among other things, to cultivate knowledge and skill about how to improve their work” (p. 92). Additionally, "the learning that is expected of teachers and administrators as a condition of their work also tends to be predicated on the model of solo practice" (p. 92). Finally, workplace learning is heavily dependent on the culture of the organization (Elmore, 2004).

Research-Based Practices and Structures in Teacher Development

Communities of professional practice. The development of site-based professional learning communities (PLCs) offers school leaders a reform approach that

meets the challenge of providing consistent opportunities for teachers to collectively expand their breadth of professional knowledge and to continuously improve their instructional practice. “A community of practice is not a new way to organize learning within the organization. It is a way of viewing how learning takes place and it emphasizes that every practice is dependent on social processes through which it is sustained and perpetuated, and that learning takes place through the engagement in that practice” (Ng & Tan, 2009, p. 38). Within this collaborative culture, school leaders are able to build and strengthen the capacity of teachers – both individually and collectively—to drive improved student learning, meeting NCLB’s demands for school reform (Schmoker, 2006). In their review of the literature on professional learning communities, Stoll et al. (2006) link professional learning communities and enhanced student outcomes. They credit Rosenholtz’s (1989) assertion that a learning-enriched, teachers’ workplace appears to be linked to better student academic progress and Louis and Marks’ (1998) finding that students achieved at higher levels in schools with positive professional communities. Ng and Tan (2009) believe that communities of practice utilize sense making, which they define as “a process that is largely technical in nature and confined to immediate practice concerns” (p.42). They challenge educators to broaden their thinking beyond sense making, in order to “enable and empower teachers to become creators of new knowledge and teaching practices” (p. 42). Ng and Tan (2009) maintain that, “encouraging teachers to engage in critical reflective learning where reflection is implicit and intuitive in nature, and general and contextual in scope and object will significantly enhance the quality of learning" (p. 38).

Professional learning communities (PLCs) build the professional capacity of teachers to address the challenges that exist regarding student learning, through ongoing collective professional learning (Eaker, DuFour, & Burnette, 2002). For this study, the working definition of professional learning communities is "…a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way; operating as a collective enterprise" (Stoll et al., 2006, p. 223). By reflecting collaboratively on their own individual and collective practice, teachers continually increase their skills to enhance students' learning. Developing a school staff to function as a professional learning community offers enormous promise for meaningful and substantive improvements (DuFour & Eaker, 1998; Dufour & Marzano, 2011; Nelson, 2008; Vescio, 2008), by providing opportunities for ongoing professional development that is driven by the needs of teachers as they naturally engage in efforts to consistently improve student learning (Vescio, 2008). Professional learning communities (PLCs) provide a structure within which the professional development needs of teachers are actualized through collaborative, ongoing, job-embedded staff development that is designed to improve classroom instruction and student learning (DuFour & Eaker, 1998; Dufour & Marzano, 2011; Easton, 2011; Hord & Tobia, 2011; Stronge, 2002). Professional learning communities have the potential to provide substantial benefits as a school improvement approach (Fullan, 2001; Hord, 1997; Senge et al., 2000). As Schmoker (2006) states, "In both education and industry, there has been a prolonged, collective cry for such collaborative communities for more than a generation now. Such communities hold out immense, unprecedented hope for schools and the improvement of teaching" (p. 137-138). Yet, as

Saunders, Goldenberg & Gallimore (2009) observe, "effective implementation of learning teams will require district leadership to improve coherence and alignment of professional development initiatives" (p. 1029). Another essential element for communities of practice to become meaningful and valuable to the school community is for individuals to be open to considering changes to their individual and collective practice. In the next section, literature will be examined that reflects the importance of purposefully cultivating reflective practice as a teacher growth strategy.

Reflective practice. Literature on reflective practice supports the following theoretical concepts: (a) a teacher's level of reflective practice has a strong correlation with the effectiveness of their instructional practice; (b) reflective practice can be learned; and, (c) school leaders can build reflective practice capacity in their staff as reflection is both a solitary and collaborative act (Blase & Blase, 2000; Chi Keung, 2009; Larrivee, 2008a; York-Barr et al., 2006). The importance of a reflective stance: a professional self-awareness in which educators weigh evidence and clarify goals (Collet, 2012), pause and question the status quo, and view their role as one of continual problem solving, is widely accepted as critical to a teacher's capacity to improve instructional practices within their classroom (Brookfield, 1995; Larrivee, 2000). Researchers also agree that educators' progress along a continuum of reflective development with the ultimate goal for all educators to become critically reflective (Figure 3).

Figure 3. The Reflective Continuum

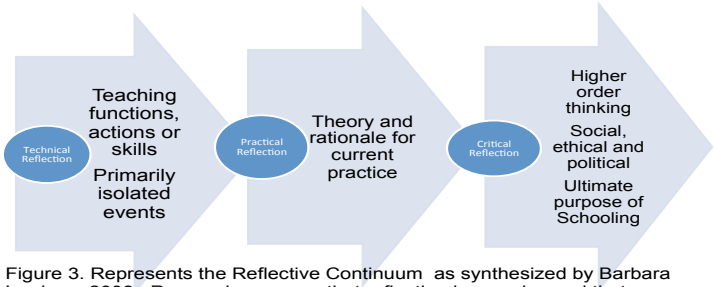

Figure 3. Represents the Reflective Continuum as synthesized by Barbara Larrivee, 2008. Researchers agree that reflection is complex and that an educator 's skills must be developed in order for them to achieve the ultimate goal of critical reflection.

Many researchers have grappled with the importance placed on reflection or reflective practice within the field of K-12 education, as well as reflection's role in the overall process of learning (Akbari, 2007; Barnett & O'Mahony, 2006; Brookfield, 1995; Houston & Clift, 1990; Danielson, 2009; DuFour, DuFour, Eaker and Many, 2010; Friedman & Schoen, 2009; King & Kitchener, 1994; Larrivee, 2000; Larrivee, 2008b; Leitch & Day, 2000; Valli, 1997). Cole and Knowles (2000) posit that reflection has the potential to be experienced across classrooms and schools: "Through systematic reflection on and analysis of practice, teachers take charge of their own professional development, and they have the potential to substantially contribute to institutional problems and issues" (p. 2). Reflective practice "encourages the possibility of deep change in assumptions, thoughts, and actions" (Osterman & Kottcamp, 2004, p. xi).

Just as teaching is a complex task, engaging in reflection necessitates an environment that is safe for sharing both thinking and practice; it must also be acknowledged that people have varied aptitudes for engaging in and developing reflective judgment (Friedman & Schoen, 2009; King & Kitchener, 1994). In a society that expects teachers to believe that all students can learn and achieve at high levels, it is only logical

for educational theorists and researchers to approach the work of improving teacher effectiveness and school improvement with a deep commitment to the belief that the adults working within schools can develop the skills, attitudes and behaviors of reflective practitioners. One approach researchers and practitioners promote as beneficial to adult learning is utilization of the reflective process, a learning process in which an individual and/or group focused on growth and improvement utilizes a purposive way of thinking to understand a past or current behavior, event, or response through inquiry and review of internal and external evidence resulting in action and learning (Barnett & O'Mahoney, 2006; Blase & Blase, 2000; York-Barr et al., 2006).

The reflective process. Many researchers suggest that teachers and administrators develop the skills and attitudes to engage in the reflective process both through and in order to improve individual and collaborative practice within schools (Barth, 1990; Dufour & Marzano, 2011; DuFour et al., 2010; Harford & MacRuairc, 2008; Schön, 1987). Reflective practice is widely recognized as a key component of the teaching and learning process (Brookfield, 1995; Harford & MacRuairc, 2008; Zeichner & Liston, 1987). Reflective teaching, therefore, demonstrates a commitment to inquiry and metacognition (Cochran-Smith, Barnett, Friedman & Pine, 2009). As a result, teachers and administrators fully engaged in the reflective process are more attuned and responsive to "what is going on in their minds and hearts" (Valli, 1997, p, 67). Day (1999) agrees that continuous reflection on practice is essential to maintaining professional health and competence. Without opportunities for teachers to regularly engage in the reflective process, Loughran (2002) is concerned that teachers will rationalize and justify their teaching practices, instead of investigating alternatives or new

opportunities that may better meet the needs of the students in their classrooms. In their study of teachers in urban and suburban schools, Friedman et al. (2009) found that when asked to negotiate how to implement and reconcile "mandated pedagogy and their personal beliefs about teaching and learning" (p. 252) teachers' responses were situated in four subcultures: compliance, noncompliance, subversion and democratic inquiry and practice. The first three of these four subcultures limit the advancement of the school. These researchers acknowledge the complexity and tensions of negotiating subcultures and mandates yet charge those in the field to embrace "systematic and rigorous inquiry and critical and collaborative discourse toward providing the greatest good toward *all* children" (pp. 273-274, emphasis in original). In response to these concerns there is a growing field of evidence-based literature (e.g., Ashraf & Rarieya, 2008; Blase & Blase, 2000; Chi Keung, 2009; DeMulder & Rigsby, 2003; Harford & MacRuairc, 2008; York-Barr, Ghere, & Sommerness, 2007) that supports the belief that teachers who meet together as peers in order to make their reflections public and receive feedback can provide each other mutual support and promote collective growth which results in increased teacher effectiveness (Larrivee, 2008b; Loughran, 2002). This effectiveness is measured by teachers' ability to make meaning of complex situations and "understand the practice from a variety of viewpoints" (Loughran, 2002, p. 36).

Teachers who engage in the reflective process are more likely to question school policies, procedures and instructional changes and are less likely to engage in the change being enacted without understanding and believing in the change itself (Valli, 1997; Zeichner & Liston, 1987). It is for this reason that school leaders must understand the reflective process and develop opportunities that allow teachers to explore school

initiatives and school policies in a manner that will result in practices that are finely tuned to advance the work of the school.

Engaging in the reflective process is cyclical and incremental (Argyris, 1982; Brookfield, 1995; Larrivee, 2000; Larrivee, 2008b; Leitch & Day, 2000; Loughran, 2002). Additionally, how practitioners engage in the reflective process varies at different stages of the career cycle (Killeavy & Moloney, 2010; Senge, 1990; York-Barr et al., 2006). Killeavey and Malloney (2010), researchers who examined whether the use of a blog would enhance a new teacher's level of reflection, based their theoretical framework on the work of Forde et al. (2006) which suggests that for beginning teachers especially, individual reflection may be of little value to making lasting, complex changes within schools as the "culture of the school has a more significant influence on the teacher's practice than personally held beliefs or values" (Forde et al., 2006 as cited by Killeavy & Moloney, 2010, p. 1071). This is one example of why school principals need to examine and foster both the cultural and specific staff needs when developing opportunities for teachers to engage in the reflective process. If the school culture is found to be ailing and prohibitive of staff growth, leadership must work to change the school culture and must support all teachers' pedagogical context knowledge.

Reflection: an individual and collaborative process. Dewey (1933) and others have identified the individual abilities and attitudes that must be developed for reflective practice to occur. These include introspection, open-mindedness, whole heartedness and a willingness to accept responsibility for decisions and actions (Dewey, 1933; Farrell, 2004; Larrivee, 2008b; Ross, 1990). The power of reflection is that it is also an instance of "social action that needs to be understood in the day-to-day context" (Cinnamond &

Zimpher, 1990, pp. 70-71). Akbari (2007) views Schön's "reflection-in-action" as an individual reflective process and "reflection-on action," as the reflective process that teachers most often experience as a collective process. Yet he argues individual reflection is the most widely experienced type of reflection pre-service teachers engage in at higher education institutions. If this is the case, the school principal's role in developing teachers' understanding and abilities to engage in the reflective process collaboratively is greatly heightened.

The reflective process as a cycle. Whether engaging in the reflective process as a solitary or collaborative endeavor, the practitioner makes a deliberate decision to examine thinking, actions or a problem (Leitch & Day, 2000; Loughran, 2002) and requires a deliberate pause to allow the practitioner to consider past action and results in conscious and purposive future action (York-Barr et al., 2006). "A reflective teacher is one who, given particular circumstances, is able to distance herself from the world in which she is in everyday and open herself to influences by others, believing that the distancing is an essential first step towards improvement (Mezirow, 1981, p.105 as cited by Day, 1999, p. 218). According to Larrivee (2000), for a teacher to step outside of her typical reflective cycle and experience a deeper understanding of herself as a practitioner, she must be willing to experience a "sense of uncertainty" (p. 304). This requires a setting that is safe and a school culture that embraces risk-taking and continual learning for all members within the community. In addition, "reflective practitioners operate in a perpetual learning spiral in which dilemmas surface, constantly initiating a new cycle of acting, observing, reflecting and adapting" (Larrivee, 2006 as cited by Larrivee, 2008a, p. 88). The importance of structured and scaffolded professional learning opportunities for

teachers and administrators to effectively engage in the reflective process which leads to professional growth will be discussed in the following section.

Reflection and professional growth. If reflection is so important, why aren't all educators more skilled at critical reflection? A number of researchers (e.g., Ashraf & Rarieya, 2008; Collet, 2012; Larrivee, 2008b) have pointed out that developing educators' abilities to be reflective practitioners is "labor-intensive" (Pugach & Johnson, 1990, p. 204) and many of our most effective teachers "find it difficult to verbalize the conceptual basis of their teaching" (Noordhoff & Kleinfeld, 1990, p. 182). Larrivee (2008b) explains an additional challenge: "the route to becoming a reflective practitioner is plagued by incremental fluctuations of irregular progress, often marked by two steps forward one step backward" (p. 93). Finally, research has also shown that an educator's ability to effectively engage in cycles of inquiry and critical reflection hinge on the person's predisposition and willingness to reflect, as well as daily environmental factors of trust and support (Friedman et al., 2009; Friedman & Schoen, 2009; King & Kitchener, 1994).

As Zeichner and Liston (1996) note, "one of the distinguishing characteristics of reflective educators is a high level of commitment to their own professional development" (as cited by York-Barr et al., 2006, p. 15). In order for the adults working in schools to better serve their students, established structures and allocated times are needed for individual and collaborative reflection to occur (Dana & Yendol-Hoppey, 2008; Danielson, 2009; Drago-Severson, 2004; Dufour & Marzano, 2011; DuFour et al., 2010; Frederiksen & White, 1997; Glazer, Abbott, & Harris, 2004; Larrivee, 2008b). According to Larrivee (2008b),

> There is an emerging consensus developing on the kinds of mediation structures that have the potential to promote higher order reflection. The generally accepted position is that without carefully constructed guidance, novices seem unable to integrate and apply learned pedagogy to enhance their practice. However, focusing on what they already know and believe about the profession has proven to be a useful starting point. Establishing self-monitoring and self-reflective activities early on in teacher education programs can promote the kind of self-awareness that allows prospective teachers to hear and listen to their own voices (p. 96).

A significant body of literature exists that supports the belief that for reflection to be of value it must be in a context that supports and creates an expectation for action (Dana & Yendol-Hoppey, 2008; DuFour et al., 2010; Killion & Todnem, 1991; York-Barr et al., 2006). This speaks to the need for principals and teachers to engage in reflective practices collaboratively both in pairs and as teams at the school level (York-Barr et al., 2006). By working together to examine current problems of practice educators can increase the opportunities students have to learn which results in higher levels of academic achievement.

Early scholarship often referred to journaling as the tool for developing reflective practice (Bourner, 2003; Larrivee, 2000; Larrivee, 2008a; Larrivee, 2008b; Valli, 1997; Valli, 1992). With the refinement of the definition of reflective practice to include an action orientation, new tools have been developed or identified as being beneficial for practitioners to enhance their reflective abilities. These tools subsequently

provide a structure for engaging in reflection either individually, in pairs or in larger group settings.

Action research as a reflective tool. One promising tool for teaching reflection is action research. Action research is believed to play a key role in encouraging reflective practice (Day, 1999; Leitch & Day, 2000; Valli, 1997). The self-reflective cycle (Day, 2000) or reflective inquiry process (Leitch & Day, 2000) is seen as nearly mirroring the steps taken through action research. Action research can be conducted individually or collaboratively.

Tools that support reflective growth for pairs. Studies on the use of peer observation (Ashraf & Rarieya, 2008; Collet, 2012), peer coaching (DeMulder & Rigsby, 2003;Vidmar, 2005), videotaping of lessons (Harford & MacRuairc, 2008; McCullagh, 2012; Song & Catapano, 2008), or the use of an instructional coach paired with reflective conversations (Ashraf & Rarieya, 2008; Collet, 2012; Tsui, 2009) have found all these approaches to have a positive impact on teachers' growth and their ability to reflect on instructional practice. This is also supported by theorists (Larrivee, 2008b; York-Barr et al., 2006) who promote reflective conversations and reflective collaboration as constructs that, when institutionalized within a school, will increase teachers' engagement in critical reflection, leading to changes in their practice and increased academic achievement for the students they serve (Ayas & Zeniuk, 2001; Barnett & O'Mahony, 2006; Glazer et al., 2004; Helterbran, 2008; Lavié, 2006; McCarthy & Garavan, 2008). In a case study of two teachers who worked with a reflective coach, Ashraf and Rarieya (2008) found that reflective conversations and the teacher's existing level of content knowledge both contributed to enhanced development. In addition, reflective conversations with a coach

helped the teachers “identify gaps in their knowledge, as well as skills and attitudes that hinder improvement of their practice" (p. 276).

Tools that support collaborative reflective growth. Tools that foster collaborative reflection can be general school structures such as grade level meetings that focus on student learning where student work or achievement data is examined; text-based discussions (Nehring, Laboy, & Catarius, 2010) such as book groups; the use of protocols; and project-based learning. Communities of practice or professional learning communities may vary in teacher make-up, purpose, structure and how long the group or team exists. Collaborative reflective tools that are associated with specific structures, countries or organizations include: Learning Walks (Bloom, 2007); Japanese Lesson Study (Steigler & Hiebert, 1999); Learning Study (Chi Keung, 2009); Cognitive Facilitation (Frederiksen & White, 1997); and Initiatives in Educational Transformation (DeMulder & Rigsby, 2003). Each of these tools is distinctive, yet they share a number of similar features. All were developed based on the belief that reflective practice needs to be developed over time, should be done in the everyday context in which a teacher works, and requires a continuous effort. Additionally, each has incorporated into its design sufficient time for reflection and a safe supportive atmosphere for teachers by either providing skilled facilitators or structured protocols.

Reflective tools that support the professional growth of groups or teams have received significant attention from K-12 educational practitioners. The challenge for researchers seeking to identify the development of in-service teachers’ reflective practice is that these structures do not always name reflection as the outcome; instead reflection is often a critical element to engaging in the group process. Killeavy & Moloney (2010),

citing Harris and Johnson's work (1998), state that "research on effective teaching over the past two decades indicates that effective practice is linked to inquiry, reflection and continuous professional growth" (p. 1071). Barnett and O'Mahoney (2006) advocate "embedding reflective practice in the school culture" where teams work together to monitor and assess their past and present practices in order to make better future decisions (p. 506). When reflection is a cultural norm in a school, it becomes difficult for teachers and administrators to tease out when and how they reflect. While this is likely an indicator of a highly effective school (Killeavy & Moloney, 2010), it makes developing an evidence base challenging as the practices of reflection are complex and may be hidden within other more easily identifiable school structures or initiatives. Two examples would be Professional learning communities (PLCs) and literacy initiatives. They often have a reflective process embedded in the implementation of the new initiative; yet, studies that examine them often do not highlight this component or name it reflection.

Reflection as a professional development strategy. Larrivee (2008b) notes that "Becoming a reflective practitioner means perpetually growing and expanding, opening up to a greater range of possible choices and responses" (p. 88). For reflection to be an effective professional development strategy, teachers must be willing to take responsibility for their actions, exercise professional judgment, and be open to alternative methods of instruction throughout their career (Day, 1999; Larrivee, 2008b). Having a reflective approach to examining practice is now seen as a key factor in the development of a teacher's knowledge and skills (Killeavy & Moloney, 2010). As highlighted previously, Larrivee (2008b) contends that developing self-monitoring and self-

assessment in pre-service teachers can help in the long-term development of teachers. Alternatively, Akbari (2007) cautions that teachers progress through developmental growth stages, with the first stage focused on developing the skills of classroom management and control. He argues that introducing reflective practice too soon can be counterproductive and have a negative impact on a teacher's need to develop survival skills early in their career. Akbari's (2007) stance of refraining from introducing reflective practices to novice teachers is extreme, though his caution has merit as noted by one new teacher who participated in the study entitled *A Teacher-Developed Reflection Process for Professional Collaborative Reflection* (Glazer et al., 2004). She found that the "global issues" being considered were not as valuable to new teachers stating, "there are some things you don't want (or need) to know yet" (Glazer et al., 2004, p. 44).

Reflection with teams of teachers. "Education is about learning - not only student learning but also staff learning" (York-Barr et al., 2006, p.27). Reflection as a professional development strategy for teams of teachers provides teachers the mechanism to learn, grow and renew throughout their careers (Ghaye, 2011; York-Barr et al., 2006). For reflection to be meaningful for teacher growth, teachers must assess their dilemmas based on both experience and interrogated evidence (Day, 1999; Larrivee, 2008b; Valli, 1997). York-Barr, Ghere, Sommers & Montie (2006) give an example of why this is critical: "10 years of teaching can be 10 years learning from experience with continuous improvement, or it can be one year with no learning repeated 10 times" (p. 27). Killeavey and Moloney (2010) suggest that due to the power of school cultures, individual reflection may have minimal value to school improvement and that for schools to engage

in lasting, complex change only on-going reflective conversations and collaborative learning of all professionals within the school community is likely to bring about the desired level of change. For schools to provide powerful, on-going collaborative learning there must be an established culture that embraces open communication, critical dialogue, and risk-taking (Ashraf & Rarieya, 2008; Osterman & Kottkamp, 2004). Valli (1997) maintains that many different voices are needed to help teachers to continue to gain effectiveness. She believes that reflection accomplishes this and can also "serve the broader goal of improving schools, human relations and educational policy"; for this to occur, however, reflection must be a "collective undertaking" (p. 86).

The importance of supporting teachers as they move along the reflective continuum towards critical reflection is unchallenged. School leaders who view reflective practice as a professional development strategy to increase the effectiveness and professionalism of the teachers they supervise will foster a supportive environment and provide time for individuals and groups to engage in the examination of instructional practices and school problems (Osterman & Kottkamp, 2004). School leaders must be committed to seeking out and then developing all teachers; yet research suggests that some practitioners are more open to critique and see themselves as perpetual learners and therefore will be more responsive to these efforts (Larrivee, 2000). For schools to become the learning environments we desire for our children, we must be "routinely engaging in reflective practice [as] it is unlikely that we will be able to understand the effects of our motivations, prejudices and aspirations upon the ways in which we create, manage, receive, sift and evaluate knowledge; and, as importantly, the ways in which we are

influencing the lives, directions and achievements of those whom we nurture and teach" (Day, 1999, p. 229).

While most educators believe that they are the catalysts for students' learning and social emotional growth, the learning and developmental needs of adults in schools must also be nurtured by building structures and relationships that foster ongoing whole school learning. Often democratic conversations and collaborative practices are initiated inside schools. Collaborative conversations around individual and group teaching are facilitated by the delivery of feedback. School structures and conditions must continually be attended to in order to keep the delicate balance required for teachers to be receptive of feedback, and maintain a reflective stance which allows professional learning in communities of practice.

Feedback to Support Educator Growth

The Wallace Foundation's (see Leithwood et. al, 2004) investigation into the factors that most impact student achievement provides clear direction for the second most powerful influence on student achievement in schools, the principal. School leaders who evaluate the quality of instruction in their schools must constantly monitor classroom instruction using effective feedback processes to direct teachers' professional learning and growth (Knight, 2004).

Schmoker (2011) asserts that to ensure implementation of quality classroom lessons, administrators must focus their attention and actions on directing educators to "ensure sound, ever-improving instruction and lessons" (p. 23). To effectively monitor teaching and learning, school and district leaders must be relentless in creating and sustaining a culture of ongoing, collective educator growth (Hanushek, 2011; Rivkin,

Hanushek, & Kain, 2005; Leithwood, Louis, Anderson, & Wahlstrom, 2004).

Based on research in efforts to develop high quality teachers, the Massachusetts Teacher Evaluation Task Force developed a new educator evaluation system and an evaluation tool. This comprehensive evaluation system places strong and immediate emphasis on supervisors' delivery of educator feedback. The feedback evaluation standard mandates that the supervisor deliver frequent, actionable, goal-referenced feedback to ensure educators receive the information they need to improve their practice. (MADESE, 2013; Wiggins, 2012). This change in the way teachers and administrators are evaluated calls for Massachusetts' superintendents and principals to adjust their focus and priorities toward becoming instructional leaders for their schools and districts.

The role of feedback. Based on a synthesis of data collected on teacher evaluations for strategic choices in professional growth opportunities, Goe, Biggers and Croft (2012) found that effective evaluation included "multiple measures of teacher effectiveness" (p. 5). Such measures can include student assessment data, classroom walkthrough observation data, peer observations, surveys, student views, and collaborative investigations into curriculum. Feedback that includes these measures can serve as effective structures to improve educator reflection and action. Effective delivery of helpful feedback, regardless of the content, is intended to "push [others] in the right direction" so that all meet performance goals (Price, Handey, Millar, & Donnovan, 2010, p. 283).

The use of teacher evaluation, vis-à-vis the delivery of educator feedback, is a systematic strategy that can enhance the instructional capacity of educators and resides at the core district goals to increase student achievement (Brandt, Mathers, Oliva, Brown-

Sims, & Hess, 2007; Tucker & Stronge, 2005). Research cites that educators' "evaluation in the form of regular, consistent feedback around instruction is valuable to new and veteran teacher" learning (Bransford, Brown, & Cocking, 2000; Oliva, Mathers & Laine, 2009, p. 1). Therefore, when teachers do not receive ongoing, multi-sourced feedback, the opportunity for districts to take advantage of in-house, low cost, collaborative, professional development is lost.

The role of feedback in changing behavior. Teacher or educator feedback has been proven to ignite the change processes needed for improving teacher quality and student instruction (Brandt, Mathers, Oliva, Brown-Sims, & Hess, 2007; Kane & Staiger, 2008). Not all feedback, however, improves educator skill sets. One noted study focusing on the use of *360-Degree Appraisals* (DeNisi and Kluger, 2000) explored factors that influence the effects of feedback. Their research encourages supervisors to create the right conditions that will foster successful delivery and reception of feedback (DeNisi & Kluger, 2000). For example, researchers found that supervisor coaching with collaborative goal-setting positively impacted the delivery of feedback to employees, thus increasing its effectiveness to activate improvement changes in performance. This study emphasizes that for feedback to be effective, it must be presented in a nonthreatening manner (DeNisi & Kluger, 2000).

In addition to providing frequent, accurate, and descriptive performance feedback, school leaders must use care in selecting the types of feedback most appropriate for teacher collaborative discussion and reflection. The use of multiple forms of feedback, if not delivered expeditiously or supported with a positive, full understanding of the content of the data, can complicate and stall the productive use of the feedback processes aimed

at improving an individual's performance and skill set (Scheeler, Ruhl, & McAfee, 2004).

Feedback, especially if it contains corrective information, can be "loaded with emotions" (Ramani & Krackov, 2012, p. 789). Therefore, in order for the educator to accept the feedback it is suggested that it be individualized according to the recipient's capacity to understand the content of the feedback and that there is ready support in assisting the individual in acknowledging the feedback. To accomplish this, Ramani & Krackov (2012) suggest anyone who delivers feedback to consider the use of the "ECO Model (Emotions, Content, and Outcome)" for delivering feedback to individuals (p. 789). This model consists of three steps to ensure the effective delivery and use of critical performance feedback. The first step is specific to the recipient and involves some preplanning on the part of the person who is delivering the feedback. This allows the feedback deliverer to examine how this individual might react to the information that is contained in the feedback and to strategize ways to facilitate its acceptance. The second step in this process calls on the deliverer of feedback to assist the recipient in understanding the content of the feedback to ensure clarity of the information. The final step in this "ECO model" process involves the use of assistive coaching on the part of the feedback deliverer to verify the identified area in need of improvement and to collaboratively assist the recipient to develop the steps needed to improve and increase their skill capacity.

One study investigating teachers' use of "feedback from external evaluations (FEE)" (i.e., student achievement data) found that in order for teachers to develop appropriate action steps or goals leading to instructional change, they must first clearly

understand the information they are receiving (Hellrung & Hartig, 2013, p. 1). This finding is important for any district and school leader who is mandated to use external performance feedback data such as student summative test scores as part of the teacher evaluation process. For example, in Massachusetts, the new educator evaluation tool contains teacher evaluation standards that will incorporate the use of external feedback data obtained from annual parent/guardian surveys, student surveys and results from the State benchmark, the Massachusetts Comprehensive Assessment System (MCAS) to assist in judging overall educator performance (MADESE, 2013).

Educators who examine student data from the previous year's MCAS assessments to identify instructional areas in need of improvement, goal development, and creation of the action steps that will lead to improved student achievement, must be provided with assistance to understand their role in student achievement and satisfaction outcome. In this way, educators can develop the accurate goal and action steps needed for improvement.

Hellrung and Hartig (2013) illustrate the processes involved when external feedback is delivered to individuals (see Figure 4). In their cycle of external feedback, Step 3 indicates the understanding of the use of feedback. Using student achievement MCAS data (the example of feedback in this cycle), individuals who deliver feedback must ensure that this information is not overwhelming or directed in a personal way to the educator who is receiving it (DiNisi & Kluger, 2000). Hellrung and Hartig (2013) also assert that if the content of the feedback is not entirely understood by the recipient, it can be problematic and stall the completion of the EER cycle that leads to changes in individual instruction and improved student achievement.

Cavanaugh (2013) cites Kluger and DiNisi (1996) by referring to this type of educator understanding as "knowledge of results (KR)" (p. 113). Without full understanding and clarification of the data contained in feedback, there is risk that this information will be rejected by the recipient, as it is probable that it will be perceived as negative. Supervisors or others who assume teacher competency in understanding student achievement data and omit the precondition of assisting staff to understand student achievement data, will encounter "strong risks that [teacher] evaluation results will be under-utilized" as a result of educator denial of the feedback and the subsequent delay of the reflective thinking that activates changes in instructional practices (Hellrung & Hartig, 2013, p. 1).

Figure 4. Hellrung & Hartig External Feedback Performance

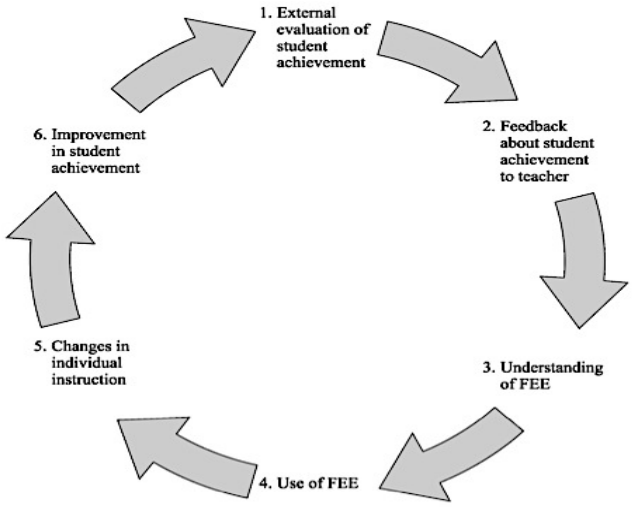

Figure 4. FEE feedback loop. Hellrung, K. & Hartig, J. (2013). Understanding and using feedback: A review of empirical studies concerning feedback from external evaluations to teachers. *Educational Research Review*, *9*, 174-190.

Effective feedback conditions. Effective supervision and management indicates that the "key responsibility for managers is to help employees improve their job performance on an ongoing basis" (Aguinis, Gottfredson, & Joo, 2012, p. 105). This

process, when conducted inside the educational setting, must provide a culture that is receptive to educator change. In one study conducted by DeNisi and Kluger (2000) it was found that in order for the use of feedback to effectively facilitate the inquiry cycle that focuses on the specific skills in need of improvement, the culture of the work environment must be conducive to individual and collaborative problem-solving and investigation of instructional practices. To help facilitate this transformation of culture in schools, Ash and D'Auria (2013) provide school and district leaders with an innovative framework for transforming or changing schools into organizations that prioritize learning for students as well as adults. They cite four drivers of change: (a) culture of collaboration and trust; (b) multiple levels of leadership; (c) personalization; and, (d) capacity building and effective professional development.

For example, the researchers found that supervisor coaching with collaborative goal-setting positively impacted the delivery of feedback to employees, thus increasing its effectiveness to activate improvement changes in performance. This particular study helped supervisors to understand that the delivery of feedback does not always result in its intention to improve individual performance and notes that for feedback to be effective, it must be presented in a manner that encourages teachers to take instructional risks (DeNisi & Kluger, 2000).

For teachers to accept performance feedback that is meant to activate reflection and learning that leads to continued individual teacher growth, the individual delivering the feedback must model and demonstrate sincerity that the intent of the feedback is to create a learning opportunity for both the administrator and teacher within the context of the school (Wiggins, 2012). Kouzes and Posner (2002), experts on leading change in

organizations, call for school leaders to create a "system of trustworthiness" (p. 10) so that leaders are able to move much faster in implementing change processes. Relationship-building skills for school administrators are critical to fostering improved teacher quality that results in greater student achievement (DuFour & Marzano, 2011; Schmoker, 2006).

Kegan and Leahy (2001), developmental psychologists in adult learning, discovered some barriers that interfered with the delivery of quality feedback. They found that when supervisors delivered constructive criticism or feedback on employee performance, it was assumed that the individual delivering the feedback had some type of "super vision" that held a higher value (p. 128). This belief created an imbalance of knowledge between collaborators and inhibited conversations to improve employee performance. As a result, feedback delivery sessions became supervisor-focused leading to the belief: "I'm right and you're wrong - end of discussion" (p. 129). School and district leaders must practice transparency in thought and action to develop the relational trust necessary for effective team learning (Covey & Merrill, 2006; Hargreaves & Fullan, 2012; Peterson & Behfar, 2003; Wiggins, 2012).

Further, Keegan and Leahy (2001) claim that school leaders must be able to engage their staff in "two-way" conversations around instructional performance where the teacher and the administrator are both active learners (p. 143). This embedded, collaborative professional development will assist in avoiding any misunderstandings and assumptions about the purpose and intent of the feedback delivery processes conducted in schools. Thus, school leaders must use constructive feedback language that values a person's individual contribution and expertise in resolving instructional problems. A

collaborative goal-setting process reinforces administrator investment in staff development while establishing partnership for creating necessary action steps toward improved teaching and learning inside the school. Administrators who foster and support collaborative work and honest and open conversations will help to ensure educator acceptance of feedback that interrogates beliefs and facilitates the change processes needed for ongoing growth of teachers (Keegan & Lahey, 2001).

Teacher performance feedback, collaborative problem solving, and goal setting for changes in instruction are similar to what Guskey (2002) terms as the teacher professional development and change process (p. 383) shown below:

Figure 5. Model of Teacher Change

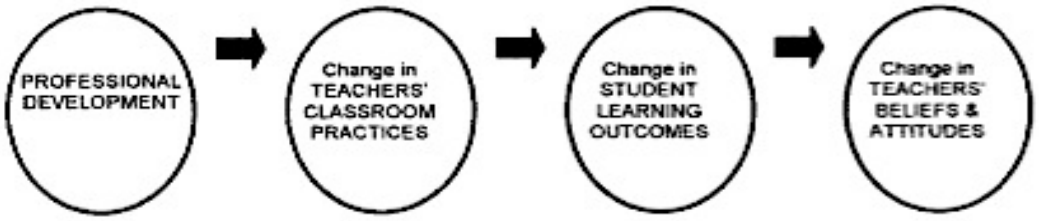

Figure 5. Guskey Teacher Professional Development and Change Model. Guskey, T.R. (2002). Professional development and teacher change. *Teachers and Teaching: Theory and Practice*, *8*(3/4), 381-391.

Guskey's (2002) work suggests that if educator changes are to sustain and endure, the individuals involved must receive regular feedback about the impact of their efforts. This finding parallels the views of behaviorists that claim when successful actions are reinforced, they are likely to be repeated while those that are unsuccessful tend to be diminished (p. 387).

One way to sustain positive educator instructional inquiry and change is through the use of protocols for collaborative discussions around data, student work or curriculum alignment (Little, 2006). Collaborative discussions that are focused on teaching and

student learning in schools are dependent on the data provided to teachers as a result of frequent and effective delivery of feedback from multiple sources.

Research has repeatedly emphasized the importance of principals as educational leaders who establish trusting teacher/supervisor learning partnerships to ensure the delivery and acceptance of ongoing, clear, quality feedback. Effective delivery of information to improve teaching and learning serves as an embedded teacher professional development tool to assist in facilitating the positive educator change that leads to individual and collective professional growth (DuFour & Marzano, 2011; Hattie & Timperley, 2007; Danielson & McGreal, 2000). "The process of transforming schools into learning organizations will come to its end when intellectual processes and feedback mechanisms at learning organizations become built into employee's attitudes, norms of conduct and value system" (Radivojevic, 2010, p. 93*)*. By delivering frequent, goal-oriented, user-friendly multiple forms of educator feedback, schools can embed an evidence-based, data-driven strategy for whole school learning and improvement.

If American schools are to create a positive, collaborative culture that fosters whole school learning, administrators must prioritize and consistently demonstrate the importance of building and maintaining a common, mutual trust among all staff. It is only through this continuous, collaborative investigation of teaching and learning resulting from the delivery of effective feedback processes that America's educational system will improve the nation's economic power and guarantee that all students will possess the competencies needed to enter the 21st century workforce (Hargreaves & Fullan, 2012; Sahlberg, 2011; Kirsch, Braun, Yamamoto, & Sum, 2007; Rothstein, 2013; Rothstein, 2010; Sherman, Honegger, & McGivern, 2003). Bambrick-Santoyo (2012)

notes that, “the real turnaround challenge will not be teacher resistance, but your own (leadership). Lock in your schedule for observation and feedback meetings, and you will make the turnaround a success” (p. 102).

Supporting the Growth of New Teachers

Characteristics of strong induction programs build upon a teacher’s pre-service development with a plan comprised of mentoring and collaboration. New teachers often face much adversity in their first classroom, not only from students, but also from fellow faculty members, parents, and the culture of the school. As Stanulis, Little, & Wibbens (2012) suggest:

> Teaching is complex work and the complexity is exacerbated when novices are prepared with different frameworks and emphases within teacher preparation programs. [Thus,] a question is raised: With what practices are we aligning induction in order to continue helping novices to learn, regardless of their preparation pathway? (p. 40)

The benefit of strong induction programs “can be realized even after one year when mentoring is well specified and targeted on a high-leverage practice” (p. 40).

Induction programs support teacher development. Moir (2009) believes that the foundation for a new teacher’s interaction with students, established course expectations, and “whether kids will be bored or inspired” is built within the first two years in the role (p. 30). School district policy and administrators “can influence both a new teacher’s development and her socialization and enculturation” by establishing a “high quality, comprehensive induction program” (p. 31). Other research points to the major components used in induction programs: “Mentorship programs, collaboration and

planning time with other teachers, seminars for new teachers, and regular communication with administrators or department chairs were the major components used to integrate teachers into a new school" (Smith & Ingersoll, 2004, p. 706). Hayes (2006) maintains that a well-designed mentoring program consists of placing expectations on the mentor teachers that "move beyond the support of the novice teacher to the establishment of individual professional goals" (p. 216). Hence, to assist in the transition to developing and improving new teacher effectiveness, perhaps one of the single best paths to success for new teachers is an effective induction and mentoring program.

Wood and Stanulis (2009) maintain that a formative approach fosters reflective discussions about classroom practices between new teachers and their mentors. Accordingly, the mentor and protégé relationship hinges on a relationship built through trust. Common elements of the mentor programs reviewed by Wood and Stanulis include: "Evidence of novice teacher's strengths and weaknesses, collected through mentor observations, team teaching, and novice teacher's analyses of students in collaboration with their mentors" (p. 139). As a result, Wood and Stanulis define exemplary mentoring as that which educates as part of quality induction programs; such programs focus on developing subject specific knowledge and pedagogy, "designing lesson plans, discussing observations, analyzing student work, and reflecting on the novice teacher's growth as a teacher" (Feiman-Nemser, 2001, Odell & Huling, 2000, as cited by Wood & Stanulis, 2009).

Effective teacher mentor programs serve as key models for developing and retaining novice new teachers and teachers entering into a new school. Administrators are charged with supporting and retaining new teachers, so strong induction programs

focused on mentoring, professional development, and improved practice are a concern for all school leaders. Teacher induction and mentoring programs can impact multiple aspects of education, school administration, and student achievement. New teacher support programs assist novice teachers by building on the knowledge and skills gained in pre-service teacher preparation programs to further educate them on competencies in effective teachers. To understand new teacher induction programs, one must understand new teacher mentoring. Ingersoll and Strong (2011) state in reference to mentoring and induction that "the two terms are often used interchangeably" (p. 203). According to Ingersoll and Strong, "Mentoring is the personal guidance provided, usually by seasoned veterans, to beginning teachers in schools" (p. 203). In recent decades, teacher-mentoring programs have become a dominant form of teacher induction (Britton, Paine, Pimm, & Raizen, 2003; Fideler & Haselkorn, 1999; Hobson, Ashby, Malderez, & Tomlinson, 2009; Strong, 2009, as cited by Ingersoll & Strong, 2011). St. George and Robinson (2011) define "*mentor* as an experienced teacher who assists, coaches, consults with, collaborates with, and guides new teachers to support their transition from novices to successful educators committed to the profession" (p. 25). The primary goal of new teacher support programs is to improve student learning, support strong teaching, and encourage continuing growth and development.

Therefore, defining teaching and learning is an important starting point for knowing the intended outcome of a quality, mentoring program. Old definitions of teaching maintain that it is the transmission of knowledge from the instructor to the student. Consequently, "Learning is receiving well-defined knowledge through memorization and correct behaviors through practice and then reproducing them in

certain contexts (Skinner, 1968, as cited by Wang & Odell, 2002, p. 484). Furthermore, "Teaching is supposed to transmit external knowledge to students through demonstration, reinforcement, and controlled or sequenced practice" (Rosenshine, 1985, as cited by Wang & Odell, 2002, p. 484). Wang and Odell provide a deeper understanding of how to define and conceptualize good teaching and learning for students through a review of past and current literature. Cohen, McLaughlin, & Talbert (1993) argue that curricula should "stress importance of students' deeper understanding of concepts and the relationships of concepts within and across various subjects, as opposed to memorization of isolated facts, concepts, and theories" (as cited by Wang & Odell, 2002, p. 484). Resnick (1987) believes that curriculum frameworks should "encourage teachers to challenge students' misconceptions and to connect students' learning meaningfully with their personal experiences and real-life contexts" (as cited Wang & Odell, 2002, p. 484). Bruner (1960) maintains that national curriculums "stress that teaching needs to place students' active discovery of important ideas at the center" (as cited by Wang & Odell, p. 484). Leinhardt (1992) states that students should be encouraged "to share and examine what they find through discourse" (as cited by Wang & Odell, 2002, p. 484). In addition, Kennedy (1991) contends that all teachers should "strive to teach all students and promote excellence for all students whatever their gender, race, and social, cultural, and economic backgrounds" (as cited by Wang & Odell, 2002, p. 484). The teacher as the center of the classroom instead of students serves as an antiquated view of classroom teaching, and new teacher supports can focus on student-centered activities, which build on the new teacher's pre-service preparation.

Mentoring as part of the induction program or new teacher support program can involve a variety of activities between a mentor teacher and new teacher. Stanulis and Floden (2009) define "intensive mentoring" as an activity that involves close work between the mentor and teacher, "where mentors observed, co-planned, analyzed student work and collected and analyzed teaching data together with a beginning teacher" (p. 120). Results of their study confirm that an intensive mentoring plan focusing on balanced instruction improved the practice of new teachers as measured using the study's particular observation tool, "aligned with specific goals of the program" (Stanulis & Floden, 2009, p. 120). Without sustained one-on-one activity between the teacher and mentor, one might question the effectiveness of an induction program. In their district-wide study of beginning teachers in the Chicago Public Schools, Kapadia, Coca, & Easton (2007) state that their data confirm that first year teachers who receive high levels of mentoring and support are likely to report a good teaching experience and their chances of remaining in the same school increases. Kapadia et al. (2007) also report that, "Many individual, classroom, and school factors, most particularly the number of students with behavioral problems, are strongly associated with novices' plans to continue teaching" (p. 2). They further argue that a variety of factors play a key role in the success and positive experience of novice teachers. A welcoming faculty assisting new teachers as well as strong school administrators contributes significantly to a good teaching experience. Quality and helpfulness of various induction activities, including mentoring, serve as high indicators of the novice teacher's positive first years. To support their claims, Kapadia et al. (2007) also contend that, "new elementary teachers receiving strong levels of support are *twice* as likely to report a good experience than peers

receiving low levels" and the chances of staying in the same school after their first year remain strong as well (p. 2). However, the induction program alone is not enough to influence teacher's intentions to continue in the profession as other school factors and classroom demands play a large role. In a large, urban school district such as Chicago, a robust and supportive induction program improves the reported experience of teachers new to the profession.

Supporting the experience of teachers new to the profession is a significant concern for many school districts that not only want to improve teaching and learning, but also increase retention. With the challenges facing new teachers, researchers argue that teaching has a relatively high turnover compared to other occupations and professions such as lawyers, engineers, architects, professors, pharmacists and nurses (Ingersoll, 2001; Ingersoll & Perda, 2010; Ingersoll & Strong, 2011). Ingersoll and Strong (2011) report that as a result of the relatively high turnover in the teaching profession, schools are regularly plagued by a shortage of teachers. However, many believe that this occurrence results from a lack of teachers entering the profession. Ingersoll and Strong (2011) contend that "the much heralded mathematics and science shortage [and] the minority teacher shortage" is not true (p. 202). Rather, the data that point to teacher shortages and staffing problems are attributed, by a significant extent, to a "'revolving door'—where large numbers of teachers depart teaching long before retirement" (Ingersoll, 2011, p. 202; Ingersoll & May, 2011; Ingersoll & Perda, 2010). Concerns about the problems faced by teachers in their first few years and the high attrition rate of new teachers led to the creation of induction programs with a heavy mentoring component (Lai, 2010; Serpell & Bozeman, 1999; Wojnowski, Bellamy, &

Cooke, 2003). Boruch, Merlino, and Porter (2012) refer to the high attrition rate of teachers, especially in urban school districts, as "churn." "Churn is a remarkable instability among school personnel that makes it nearly impossible to build a professional community or develop long-term relationships with students" (Boruch et al., 2012, p. 20). High quality mentoring programs serve as one way to reduce churn as these programs encourage and support teachers to remain in their schools and positions. As Boruch et al. (2012) argue, "in a hurricane of churn, you can't build the culture of trust and safety that kids need to learn" (p. 21). Nurturing programs as a component of a collaborative culture of continuous improvement requires the support of school level leaders as well as district level administrators.

Role of Educational Leadership in Continuous Teacher Improvement

The effect of leadership on teacher quality and student learning is significantly underestimated (Leithwood et al., 2004). In a landmark study into the ways in which leadership influences student learning, Leithwood and colleagues found that the "total (direct and indirect) effects of leadership on student learning account for about a quarter of total school effects" (p. 5). This presents a challenge for school districts, as "principals, superintendents, and teachers are all being admonished to be instructional leaders without much clarity about what that means" (p. 6). The principal has been cited as the foremost instrumental factor in developing the capacity of staff to effectively engage in their work as a community of professional learners (Cranston, 2009; Hipp & Huffman, 2000; Hord, 1997; Lambert, 1998; Louis et al., 2010; Reeves, 2006; Spillane, Halverson, & Diamond, 2001). Principal leadership has a positive, while indirect, relationship with student achievement (Hallinger & Heck, 1998; Marzano, Pickering, & Pollock, 2005). The

principal affects teachers, who in turn directly influence student achievement. DuFour and Marzano (2011) offer a visual representation of this relationship, indicating that the principal's influence on student learning passes through teachers.

Figure 6. Relationship Between Principal Behavior and Student Achievement

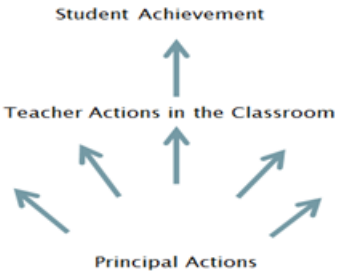

Figure 6: Relationship between principal behavior and student achievement (DuFour & Marzano, 2011, p. 49).

Blasé and Blasé (2000) "found that in effective principal – teacher interactions about instruction, processes such as inquiry, reflection, exploration, and experimentation result; teachers build repertoires of flexible alternatives rather than collecting rigid teaching procedures and methods" (p. 132). Hargreaves and Fink (2003) also articulate the relationship of principal behavior to student achievement when they maintain that all "leaders of learning put learning at the center of everything they do. They put student learning first, and everyone else's learning is directed toward supporting student learning" (p. 3).

In assessing the effect of superintendents on student achievement, Marzano & Waters (2009) highlight the significant role that district leadership plays in this work, as superintendents are able to provide the conditions necessary for principals to be most effective in facilitating continuous teacher improvement. Fullan (2001) asserts, "The role

of leadership is to 'cause' greater capacity in the organization in order to get better results (learning)" (p. 65). Richard Elmore (2000) agrees, stating that:

> …the job of administrative leaders is primarily about enhancing the skills and knowledge of people in the organization, creating a common culture of expectations around the use of those skills and knowledge, holding the various pieces of the organization together in productive relationships with each other, and holding individuals accountable for their contributions to the collective result. (p. 15)

The role of instructional leadership is not limited to school or district administrators, however (Leithwood et al., 2004). Leithwood et al. assert that in order to create an environment of student and organizational success, effective instructional leadership should be distributed among all staff in school districts, providing opportunities for the continuous skill development of superintendents, principals, and teachers (Leithwood et al., 2004). In an analysis of over 20 leadership and management studies, Peter Gronn (2002) concluded that effective school leadership can be found in the practices and interactions of "many leaders" to complete the diversified tasks of the principal (p. 430). As an alternative to the more traditional focus on the deeds of individual leaders, Gronn proposes that a distribution of leadership will more effectively accommodate new patterns of interdependent practice (p. 424). While supporting Leithwood et al's claims (2004) that effective organizations are developed and maintained by the measurement of "how well these leaders interact with the larger social and organizational context in which they find themselves" (p. 23), Gronn's work also aligns with Burch and Spillane's (2005) concept of distributed leadership, which echoes

this democratic, distributed notion of leadership. Spillane states, "Leadership practice takes form in the interactions between leaders and followers, rather than as a function of one or more leaders' actions" (p. 147). Like Gronn, Spillane sees leadership as evident in the interaction of many leaders, so that ''leaders' practice is stretched over the social and situational contexts of the school…not simply [as] a function of what a school principal, or indeed any other individual leader, knows and does (Spillane, Halverson, & Diamond, 2001, p. 6, original emphasis).

Role of Teacher Evaluation in Teacher Growth

In June 2011, the Massachusetts Board of Education (BoE) passed new regulations on the evaluation of educators in the Commonwealth. The Massachusetts Department of Elementary and Secondary Education (MA DESE) and BoE have identified reflective practice as a requirement for effective teaching and leadership in the schools across the Commonwealth. Under the professional culture standard for administrators, an indicator for "continuous learning" will evaluate the administrator on how they "develop and nurture a culture in which all staff members are reflective about their practice and use student data, current research and best practices and theory to continuously adapt instruction and achieve improved results" (Mass Department of Ed., 2011).

Additionally, school leaders will also be evaluated on how they model these behaviors in their own practice (Mass Department of Ed., 2011). As districts across the Commonwealth are in the early stages of interpreting and implementing these regulations, what this looks like in practice is still largely unknown. Research supports the use of tools such as self-assessment, journaling, and videotaping as a means of

formative assessment leading to personal and professional goal setting (Barnett & O'Mahony, 2006; Beerens, 2000; Bolton, 2010; Bourner, 2003; Dufour & Marzano, 2011; Larrivee, 2008a; Reagan, Case, & Brubacher, 2000).

It is important for school administrators to consider how they interpret and implement the regulations as Elmore (2004) cautions "most workplace learning mirrors the norms of the organization" (p. 92). The potential and the pitfalls encompassed in the new regulations are clearly articulated with Day's (1999) assessment. He states it is necessary for policymakers to acknowledge the importance of reflection that includes more than personal experience, and policymakers must see to providing "appropriate support to enable this to occur" (p. 228). He sees this support as a "key factor in raising teacher morale for so long battered by reforms which seek to simplify the nature of their work by judging it through narrowly conceived measures of student achievement" (p. 228).

The new Massachusetts Model Evaluation System requires educators to set professional and student achievement goals and to collect evidence that shows how the educator has progressed towards these goals. Successful implementation of the new evaluation system will be more likely to occur in districts that provide both teachers and administrators the levels of training and support and time essential to build a culture that is prepared to embrace this tool as a vehicle of professional growth.

As discussed, Wenger's (2008, 2011) theory of communities of practice is the conceptual framework for this study, and functions as the lens in which to analyze the various foci of the study. Wenger's communities of practice leads into the research of Judith Warren Little's levels of collaboration, and specifically, joint work, favored by

Cordova's superintendent. The four main parts of our study each contribute to the gap in the literature regarding teacher's perspectives on professional growth and support. While the research is unclear on a succinct definition for teacher quality, the importance of ongoing teacher improvement is clear. Teaching is a dynamic profession, and teacher growth and development leads to improved practice and better student learning outcomes. As Marzano (2003) points out, the single biggest factor to improving education is improving the effectiveness of teachers. Consequently, professional development support is a key practice focused on teacher growth, and research points to the importance of administrators, and specifically principals, in facilitating growth opportunities for teachers.

The four areas of research focus -- reflection, new teacher support, feedback and building leadership capacity --collectively contribute to the gap in the literature around educator's views regarding the impact of structure and supports to promote ongoing professional growth for teachers. Reflection addresses the importance of examining one's practice in order to analyze ways to improve and solve problems of practice. To support new teachers, the research outlines the importance of a formal induction program and one-on-one mentoring. The investigation into the use of educator feedback provides an analysis of how the district uses multiple forms of feedback content to support individual and collaborative teacher growth. District leadership plays a key role in providing the leadership capacity necessary for building leaders to cultivate schools that function as strong and effective communities of practice. In tying these different perspectives back to the gap in the literature, the importance of highlighting educator voice is key to understanding the structures and supports available to teachers in a school district.

Blasé and Blasé (2000) studied teachers' perspectives on how principals promote teaching and learning, and they claim that few studies have directly examined teachers' perspectives on the principles of everyday instructional leadership characteristics and the impact of those characteristics on teachers. Blasé and Blasé further argue that the relationship among instructional leadership, teaching, and even student achievement has not been adequately studied. They cite that more research is needed "into the effects of leader behavior on teacher behavior, the relationship of instructional leadership to teaching, instructional leaders' characteristics, and conditions necessary for effective instructional leadership" (p. 131). As a result of this gap in the literature, we conducted a case study to examine the impact of leadership on the growth and development of teachers.

CHAPTER 3

METHODOLOGY[3]

The goal of this study was to investigate teachers' and leaders' perceptions of how one Massachusetts school district supports teacher growth and improvement. In an age of high teacher accountability and a strong focus on student achievement, school districts must be able to ensure that all students have access to quality teaching from instructors who are committed to their own professional growth and development. However, districts, and more specifically, leadership at both the school and district levels, must be able to provide the structures and conditions necessary to foster ongoing teacher improvement. Therefore, the research team has identified the following overarching question as the focus of this qualitative case study investigation of a suburban Massachusetts district: How are teachers' professional growth supported by their school and district? The sub-questions serve to look deeper into what promotes or hinders teachers' continuous growth:

1. What district and school-based supports do teachers and leaders perceive enable teachers to improve teaching practice and professional growth?
2. What leadership behaviors and structures at the school and district levels do teachers and leaders perceive as most beneficial to improvement in teacher practice and professional development?

Individual Research Questions:

[3] This chapter was jointly written by the authors listed and reflects the team approach of this project: Telena S. Imel, Philip McManus II, Maryanne Ryan-Palmer and Christine M. Panarese

- In what ways do the structures and resources provided by district leaders support school-based collaborative teacher growth?
- What actions do school leaders take to engage teachers in a reflective process?
- How is feedback used to support individual and collective educator development?
- What supports new teacher growth?

Case Study Design

The research group reviewed several types of data collection methods before selecting a qualitative study approach to answer their research questions. Qualitative research allows for the researchers to build upon their initial knowledge about this phenomenon using a "systematic process" of investigation (Merriam, 2009, p. 4). Merriam (2009) describes qualitative research as a process in which the research seeks to understand "how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (p. 5). This case study seeks to describe and understand the processes, protocols, and practices that facilitate the ongoing growth and development of teachers in one school district. Yin (2003) describes the case study as an "empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (p. 13). Merriam (2009) uses a more standard definition to convey understanding of a qualitative research case study by stating that a "case study is an in-depth description and analysis of a bounded system." This case study was bounded by a focus on one Massachusetts school district.

Sample Selection and Description of Site

Given that time and site access are critical to the success of this case study, purposive sampling was used in our research. Purposeful selection allows the researcher to choose research sites for a particular purpose (Leedy & Ormond, 2005). To initiate the purposive sampling process in this study, the research team solicited three nominations each from five Massachusetts educational experts who are familiar with district reputations regarding teacher instructional growth. These experts included three former superintendents, one Massachusetts Department of Elementary and Secondary Education official, and the president of a state-wide administrators' professional association.

As part of the pre-selection process, the team narrowed the pool of districts in Massachusetts by applying a sorting filter that would meet the criteria of a district that was K-12; had a student population of more than 1,000 but less than 8,000 students; and was categorized by the Department of Elementary and Secondary Education (DESE) as a level 1, 2, or 3 school. These criteria eliminated all turnaround schools, as their unique challenges prohibit their being a subject of this study. The research team asked nominators to recommend districts they perceived to have a commitment to continual teacher growth. Furthermore, we asked our experts to limit their district referrals to those located in the eastern part of the state, preferably in the metro Boston area.

In consultation with our dissertation committee, the research team reviewed the recommended sites. The types of districts suggested included middle class to upper middle class, suburban to urban cities, and towns with a reputation for supporting teacher growth. We used our superintendent mentor to reach out to the superintendents of these nominated districts to ascertain interest in our study. Based on the information gleaned

through this process, the research team selected a district that met the criteria we have named Cordova (pseudonym). Once preliminary interest was established, the research team met with the superintendent to share our proposed study and to secure agreement to conduct research within the district.

Participants

The superintendent identified three principals, including the high school principal, the middle school principal, and an elementary principal he deemed to be supportive of the growth and development of their teachers (See Table 2). When determining our sample group, the researchers asked the superintendent to identify 26 potential participants who have demonstrated an openness to growth in their professional practice, including seven teachers from each level (elementary, middle and high) who display the range of characteristics outlined in the participant selection protocol (i.e. gender, new teacher, mentor, and position (See Table 1).

From this sampling, the research team selected participants to fulfill the stated criteria. We acknowledge the limitations of asking district leadership and principals for recommendations. These limitations and biases may include administrators choosing candidates with qualities similar to themselves, or educators who are viewed as supportive of administrators' efforts, or educators who exemplified high quality instruction. The resulting participant group represented a cross section of the district's professional staff that allowed for generalizations in analysis.

Table 1
Participant chart by level and role

Administrator	Central Office Superintendent A. Superintendent	High School Principal	Middle School Principal A. Principal	Elementary Principal

Teacher	ELA Special Ed. *	Art Science Special Ed.* ELA	Music Kindergarten Special Ed.

*** This teacher is shared between two levels.**

Data Sources

This qualitative study employed multiple, in-depth data collection processes, including field notes, interviews of professional staff members, collection of district and site-based artifacts, and multiple research team member observations to establish the themes that assisted in creating detailed, descriptive outcome reports (Creswell, 2012).

The particular theoretical framework that a researcher selects will "generate the problem of the study, specific research questions, data collection and analysis techniques, and how you will interpret your findings" (Merriam, 2009). A conceptual framework using Wenger's (1998) communities of practice has been applied to shape this study's analysis. Our intention was to collect data for this qualitative study through the months of August 2013 through February 2014. This limited time frame allowed the research team to conduct individual and group interviews, observe schools, and collect artifacts for analysis. The actual dates and times for the interviews, observations and data review were scheduled for the convenience of the participating school district. Researchers utilized detailed data collection procedures (See Appendices B, C, and D for examples of the teacher interview protocol, administrator interview protocol, and observation protocol). The research team determined the extent of the need for targeted observations based on the initial data collection analysis. Minimally, each researcher conducted one targeted observation specific to the research topic.

To investigate and collect data to answer these research questions, the research team conducted (a) semi-structured interviews; (b) artifact/archival reviews; and (c) researcher observations of those events that provided additional information about district efforts to improve teacher quality such as professional development workshops, staff and team meetings, administrative meetings, and mentoring activities (Creswell, 2012).

Interviews. Interviews in qualitative studies are conducted either individually or in focus groups and usually consist of open-ended questions. Qualitative interviews are designed to collect personalized data on an individual's beliefs or experiences that cannot be obtained using other methods of data collection such as field observations. It is for this reason that the research group chose to gather the data for this inquiry using open-ended questions and probes to interview this study's participants (See interview protocols in Appendices B & C). Participant responses to the interview questions were recorded through the use of technology and later transcribed for analysis (Creswell, 2012). Interviews and recordings were transcribed using the same fee-based transcription service to preserve accuracy in transcription.

The research team field-tested interview questions and follow-up probes on three neutral participants prior to use in the research site to validate their effectiveness. As Merriam (2009) notes, "A pilot study is more than trying out your data collection methods" (p. 270). The purpose of the pilot study is to field test the interview questions, assist in the identification of some preliminary codes, as well as to alert the research team to any potential problems with the interview questions in advance of the actual scheduled site visits and interviews. The pilot study participants were selected from non-participating school districts similar in nature to our research site. Face-to-face interviews

"yield the highest response rates" and thus have been chosen for use in this qualitative study (Leedy & Ormond, 2005, p. 185). A full disclosure statement for research participants about the study was given to all participants prior to the interview (see Appendix A).

The research team conducted 14 individual, face-to-face, semi-structured interviews with interviewees using open-ended questions and predetermined probes to elicit in-depth responses. Participants included the superintendent, the assistant superintendent, three principals (one from each level), an assistant principal, and eight teachers from all levels (See Table 1). The interviews focused on eliciting responses from individuals to uncover the district's attitudes, beliefs, practices, and perceptions concerning continuous teacher improvement. The interview protocol followed standard research guidelines that allowed participants to skip questions or end the interview at any time. Interviews were approximately 45-60 minutes in length for each participant. All interviews were recorded by the research team and were transcribed verbatim and coded for further data analysis. Transcripts were then sent to interview participants as a form of "participant verification" to ensure the accuracy of participant responses (Harper & Cole, 2012). The research team used "check-coding" by breaking into pairs and dividing the transcripts between the two teams allowing for discussion which resulted in consensus on data interpretation (Miles & Huberman, 1994, p. 64).

Observations. The purpose of the observations was to collect data about practices in the district that might relate to teacher growth and development. During the leadership retreat and new teacher induction, as participant observers, the researchers were placed within the participant groups to closely observe and engage in the meetings.

School site observations focused on the interactions and types of communication that support teacher development at the school and district level. The research team used the annual district professional development calendar to preselect specific meetings or events to observe. Some examples of these types of meetings included leadership team meetings, induction program meetings, and data team meetings.

To conduct participant observations researchers must manage competing tasks to "write/listen/think/observe all at once" (Palmer, 2001, p. 310). Borrowing from the ethnography side of qualitative research, the research team used a structured approach through observations to manage the collection of data in a focused, systemic manner. Spradley and Baker (1980) provide researchers with a suggestion that allows for a focused collection of key data: space or the physical environment observed; actors (meaning who is running the meeting, who is talking, who is listening and what are they saying); activity or focus of the meeting; what objects are present; what actions people are taking; sequence of events; what people are trying to accomplish; and feelings expressed. All observations were recorded using technology and written field notes, which described interactions and the physical environment.

Artifacts/Document Review. The research team used purposeful sampling for the review of school and district documents. As Creswell (2012) notes, "Documents represent a good source for text data for a qualitative study" (p. 223). For this study, the researchers reviewed artifacts to help inform and validate interview data and to identify structures and supports that encourage teacher growth. Researchers examined the following documents from the school years 2002 to present:

- District and building benchmark data meeting schedules, agendas and reports for determining frequency, quality, and types of performance feedback
- Teacher and administrator evaluation tool(s)
- District improvement plan and school improvement plans for alignment of goals
- School committee and leadership meeting agendas and notes to determine superintendent's priorities
- Meeting protocols and norms
- Daily schedule and annual professional development calendar
- MA DESE reports (i.e. district review, district audit, and mid-cycle quality review)

Data Analysis

The study aimed to identify teacher and administrator perceptions about how one district supports the growth and development of teachers within their system. Several stages of data analysis were used in this study. The initial analysis began early in the study with the full reading and verbatim transcription of each interview and observation field notes as they were completed. Upon completion of all interviews and observations, a preliminary exploratory analysis of transcripts, field notes, and artifacts was used to provide a general sense of the data, facilitate the structure of organization, and to help decide whether more data were necessary or needed (Creswell, 2012, p. 243). The next step in our data analysis was use of predetermined codes to elicit the themes or categories in the data. These initial codes provided a starting point for the management of the data. Additional codes surfaced "during the interaction with data and in conversations with" the research team (Hatt, 2012, p. 10). This secondary coding process was conducted

using the predetermined codes that helped to identify and describe the themes that emerged from the data, as well as to highlight and categorize similar attitudes, beliefs, and perceptions among all study participants. This analysis also provided researchers the opportunity to identify contrary evidence or evidence that did not support or confirm the research team's established themes (Miles & Huberman, 1994).

Use of technology, including the online software program Dedoose, assisted in the coding, storage, organization, management, and analysis during the coding and examination stage of the study. Interview transcripts, observation field notes, and artifacts were coded using a team-coding manual to assist in the storing, organizing, and management of the data collected from this study. This allowed for expeditious processing when researchers identified common descriptions and themes across the data set (Creswell, 2012).

Authenticity and Trustworthiness of the Data

Creswell (2012) states that, "good qualitative reports need to be realistic and persuasive to convince the reader that the study is an accurate and credible account" (p. 18). A structured observation strategy allows researchers to use a common form of data gathering such as recording of observations and researcher notes. Although observations are meant to collect data using an unstructured approach, as novice researchers, this strategy reminds each observer to record some predetermined focus areas as well as to maintain the individual researcher's flexibility in the recording of what is seen and heard (Leedy & Ormond, 2005). Using this strategy, researchers recorded a chronology of events, a detailed portrait of each individual or individuals, a picture or map of the setting, or verbatim quotes of the individuals (Creswell, 2012, p. 277). Maxwell (2005)

describes this process as "descriptive validity" which serves to increase the validity of this study by avoiding the omission of data (p. 287). According to Miles and Huberman (1994):

> In qualitative research, issues of instrument validity and reliability ride largely on the skills of the researcher. Essentially a person – more or less fallibly is observing, interviewing, and recording, while modifying the observation, interviewing and recording devices from one field trip to the next. Thus you need to ask about yourself and your colleagues, how valid and reliable is the person likely to be as an information-gathering instrument? (p. 38)

The research team used a pilot study, teacher interview protocols, administrator interview protocols, and group consensus on the prescriptive delivery of the interview questions, to provide validity and reliability assurances. Further, this systematic, structured investigation used triangulation to validate the interpretation of the data that was collected. In this case study, triangulation consisted of multiple researchers who triangulated multiple data sources. Triangulation of theorists and triangulation of school level data is the process that assures research credibility by soliciting multiple viewpoints of various researchers and accessing a variety of sources of information, confirmation, individuals and processes of data collection (Creswell, 2008). Ongoing scrutiny of the work of the research team was essential to the validity of the research being conducted. Miles and Huberman (1994) suggest that in order to confirm a finding, members of this research team should employ the method of triangulation to identify consistencies or contradictions. Triangulation allowed the researchers to see or hear multiple accounts of the same themes from a variety of sources and consult with each member of the research

team for confirmation. Triangulation can increase strength and validity of data collection methods (Creswell & Miller, 2000).

Secondly, member checks were conducted to ensure the credibility of this case study. Lincoln, and Guba (1985) consider member checking the single most important provision that can be made to bolster a study's credibility. Creswell (2008) would suggest that members of this research team take their own accounts, description and themes and compare the findings with each participant to increase the validity of data collection and analysis. Checks relating to the accuracy of the data took place "on the spot," in the course, and at the end of the data collection dialogues. Informants were also asked to read any transcripts of dialogues in which they have participated and confirm their accuracy. Here the emphasis was on whether the informants considered that their words matched what they actually intended, since, if a tape recorder had been used, the articulations themselves should at least have been accurately captured.

Another element of member checking should involve verification of the investigator's emerging theories and inferences as these were formed during the dialogues (Merriam, 2009, p. 217). "This is the single most important way of ruling out the possibility of misinterpreting the meaning of what participants say and do in the prospective they have on what is going on as well as being an important way of identifying your own biases and misunderstandings of what you have observed" (Maxwell, 2005, p. 111).

Finally, the researchers implemented Audit Trails, which documented the process of collecting the data, similar to Yin's (2009) "chain of evidence" (p. 3). These processes provided evidence of the sequence of procedures and events used to gather the evidence.

A journal was used to record reflections, assumptions, and reactions to the phenomenon that was being studied (Guba, 1981). The investigation of "rival explanations" assisted in assuring that the data and its analysis were accurate (Yin, 2009, p. 3).

Individual Biases

Each researcher acknowledged any relations with district members of the sample group. Possible individual biases were identified and disclosed to members of the research team. We also created processes designed to limit the impact of individual biases on the study. These included having another team member review the verbatim transcriptions and co-code sections of the data, audit trail entries, and member checks with participants.

Timeline

The following timeline guided the research tasks of this proposal:

Start Date	End Date	Research Task
March 2013	April 2013	Solicited multiple nominations from experienced educational experts that have knowledge about districts that have the reputation of fostering growth and development of teachers
July 2013	July 2013	Defended proposal
July 2013	August 2013	Contacted the selected district and made initial introductions and presentation of proposed study
August 2013	August 2013	Completed pilot study in the research group's individual districts
August 2013	October 2013	Initiated the scheduling of perspective district leaders; conducted interviews with available district personnel, collected data and artifacts, observed specific district activities

September 2013	October 2013	Continued with district visits to conduct interviews with district and school personnel, continued to collect artifacts and strategic observations
October 2013	January 2014	Began data analysis process and identification of themes, document inferences and findings
November 2013	February 2014	Continued with data analysis and identification of themes, documented inferences and findings, began to write up findings

District Historical Background and Setting

The Cordova School District was specifically chosen for this study because of its reputation as a district that promotes ongoing teacher growth. The school district, located in the northern part of Massachusetts, is best characterized as a suburban community. Cordova, a middle-class, residential community, continues to use the town meeting form of government consisting of a five-member board of selectmen and town manager.

District policies and fiscal procurement are delegated to the collaborative work of the five-member school committee who are elected by the town voters. The school board and the superintendent are responsible for the development and adherence of policy and the fiscal management of Cordova Schools. There are five elementary schools, one middle school and one high school that serve students in kindergarten through grade 12. There are approximately 5,000 students enrolled in the Cordova schools during the 2013-2014 school year, and the total per-pupil expenditures for the 2012 school year were $11,603.00, approximately $2,000 less than the state cost per student. It should be noted that while Cordova ’s school enrollment trends for the past several years have remained relatively stable, the average cost per student for this period of time has shown a consistent upward trend as noted in Figure 7 (DESE, 2013). The district has minimal

diversity among its students as approximately 81% of the students are categorized as white. The next largest demographic subgroup of students is identified as Asian (7% of the student population), followed by Hispanic students who make up 6.8% of the total population.

Figure 7. FY2008-FY2012 Cordova School District Per Student Spending

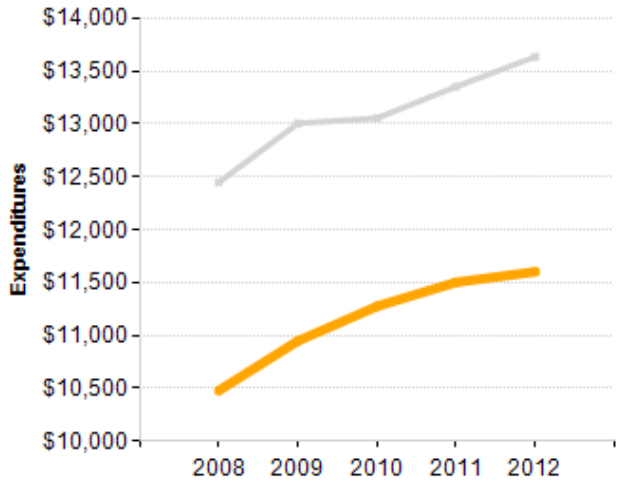

Figure 7: NA Five-year trend of per student spending (MADESE, 2013).

The district has an overall a poverty rate of approximately 30% with two of the five elementary schools enrolling the largest number of high need students. Although the district remains well below the State average for special education with only 14% of their students requiring specialized services, there has been an increasing trend in the identification of students assigned to this category over the past five years (DESE, 2013). The student-to-teacher ratio for the school year 2012 was 15.1:1, which is a little higher than the state average (DESE, 2013)

Transitions in leadership & governance. In 2010, the Massachusetts Department of Elementary and Secondary Education (DESE) assigned Cordova Public

School District a level three designation in response to the low achievement of Tyler Elementary School. The school had not met its improvement targets, and the district was continuing to struggle to close the achievement gap between the special education subgroup and the aggregate.

The findings outlined in this audit report explain why, in the letter from the Director of the New England Association of Schools and Colleges (NEASC), the Cordova School District was issued a one-year extension to complete the mandatory NEASC site visit to secure its high school accreditation. The letter states that the high school would be "unable to undertake the self-study" based on the "conditions" of the District (NEASC, 2006). These events, along with almost a $3,000,000 budget shortfall and reductions in force (RIF) precipitated the resignation of the superintendent prior to the end of the 2006 school year. The district experienced instability for a period of time after this incident and would have four more central office leader transitions before finally appointing the current superintendent who has been in office since 2012. The district has made a great deal of progress over the course of the past few years since the budget shortfall and has been more financially stable.

In the past ten years residents of Cordova have voted to allocate funds to renovate, expand, or build several new schools, including the construction of two new elementary schools, a complete renovation of the intermediate school, and the completion of the new high school and athletic stadium.

In 2012 the transition for the current superintendent was eased as he had previously served as the assistant superintendent for the district. Other stabilizing factors include the promotion of an elementary school principal to the position of assistant

superintendent. The current superintendent and assistant superintendent maintain positive relationships with the faculty and have a good reputation in the district. In fact, in all but a single case at the elementary school level, each of the school leaders in the district, including the middle school and high school principals, have served in their roles for five years or more. Teacher transition in Cordova is minimal and the only major incidence of staff turnover in the past five years was found in 2006 (for the 2007 school year) as a result of a budget shortfall and RIF processes.

By the start of the 2012 school year the newly appointed superintendent conducted a series of entry interviews with stakeholders in the community and the schools. Their responses centered around three areas: (1) setting high, aspirational goals for both staff and students; (2) expanding communication; and (3) targeting resources for student achievement and student success (DESE, 2014).

From the onset of his appointment as superintendent, Dr. Murphy focused on establishing a culture of continual improvement of practice toward student learning. Based on the work of Judith Warren Little (1990), Superintendent Murphy propagated a common understanding throughout the district regarding the use of protocols to review student work with the goal of improving instructional practices. Consequently, he has worked to provide the structures to enable collaboration while maintaining the expectation that teachers must collaborate and principals must ensure that collaboration takes place. The results section will delve into the superintendent’s vision for collaborative structures and protocols and discuss the district's culture of psychological safety.

CHAPTER 4

RESULTS[4]

This study examined how one Massachusetts district, Cordova, promoted professional growth of all educators. It is hoped that the outcomes of this study offer school leaders insight into ways in which they can foster ongoing professional learning of educators both individually and collectively within their schools. Teachers' and leaders' perceptions and the examination of current district structures and professional growth initiatives revealed leadership practices and supports that appeared to facilitate both the individual and the collective capacity of educators. The results section shares the findings from data analysis to answer the central research question: How are teachers' professional growth supported by their school and district? The sub-questions serve to organize the findings into two sections and allow a closer examination of what teachers and leaders perceived to promote or hinder teachers' continuous growth.

Wenger (1998b) asserts that collaborative communities of practice form naturally in organizations due to similar interests. This study assumed that the district selected for our case study had numerous and varied communities of practice (Wenger, 1998b). The research team found communities of practices that were as varied as each individual in the district. There were many structured communities of practice created at each level of the district, specifically grade level, departmental, district, and building-based leadership teams. While many communities of practice existed, the level of functioning and collaboration between each varied. Additional unstructured "communities of practice"

[4] This chapter was jointly written by the authors listed and reflects the team approach of this project: Telena S. Imel, Philip McManus II, Maryanne Ryan-Palmer and Christine M. Panarese

based on alliances and interests (e.g. teachers with the same lunch period, teachers newer to the building, or those who have had similar students and have created a support system) were also found to exist in the Cordova School District.

Sub-question 1: What district and school-based supports do teachers and leaders perceive to enable teachers to improve teaching practice and professional growth?

A district vision that is articulated through clear expectations and modeling.

Professional growth in Cordova is supported by a centrally developed vision for the district, clearly articulated in a one-page, strategic plan that establishes the direction for all district work. The strategic plan, developed by the leadership team (district and building-level leaders), sets forth a theory of action that is clear and concise:

> If we establish a standards-based curriculum and assessment system with collaboration focused on improving instructional practices that engage students to critically think, collaborate, communicate, and demonstrate creativity, then we will continually improve student learning.

In a one-page format, the strategic plan also sets forth a clear expectation of professional practice for district educators:

> Teachers will address the needs of all learners through the regular use of data, gathered by frequent formative assessments and the consistent use of structures to examine their practice through the lens of student work, to inform and adapt instruction.

This strategic plan provides a consistent message for district administrators and teachers alike regarding the power of collaborative examination of practice through the lens of student work. The superintendent expressed it this way:

> … that's the structure I asked for. School improvement goals ultimately have to be about how will this improve student achievement. In our strategic planning we talk about the instructional core, student, teacher. It's a triangle. Student, teacher and content make up this instructional core. If what you're doing doesn't relate to that instructional core in my estimation don't put it in the school improvement plan.

The district leadership team outlined the strategic plan and process for implementation on opening day as the Cordova staff began their two-day retreat in preparation for the new school year. In the words of the superintendent:

> … teachers will adjust to the needs of all learners through the regular use of data gathered from the frequent formative assessments and the consistent use of structures to examine their practice through the lens of student work to inform and adapt instruction. Again it's very much directly related to supervision and evaluation. But the initiatives that we're trying to focus on…establishing a system of common assessments… implementing and analyzing different models of collaborative time… it's always improving.

The superintendent's vision involves improved practice that leads to student learning. He explains:

> I think the vision is ultimately to improve student learning. What do you do to improve student learning? …It goes back to the four questions. What is it we want kids to be able to do? How will we know? What is it we want them to be able to do? How will we know? It's not about what the kids have to do differently. What do we have to do differently?

Through the use of norms and protocols, district leaders consistently communicated and modeled vision and expectation to facilitate joint work. This was evidenced by the observations of leadership team meetings and the collection of district artifacts. Assistant Superintendent Sullivan also articulated the use of modeling as a means of establishing the need for collaborative structures in schools and classrooms across the district:

> We're [referring to the leadership team] always talking about we want teachers, data teams, to look at student work and teachers to get together to collaborate and share best practices and come out of the caves of isolation. In order to do that it's critical that [the leadership team] model that behavior, and we're kind of the exemplar for that behavior, and I think that's something we've really worked on in the last two years…Rather than telling the teachers: this is what you're going to do…We can't pay lip service to it, we truly have to live that.

As modeling clarifies expectations, the vision is shared across the district, heightening the capacity of all educators to collaborate in meaningful ways that impact professional practice toward student achievement. One building-level leader reinforced how using common assessments to drive instructional practices is increasing and becoming embedded in the culture of the school:

> But now, I think it's part of our culture… and people are seeing the value … what it means is that it shouldn't matter which teacher you have, everyone should be getting the same curriculum… [teachers] see value in collaborating and working together, and developing assessments.

In an observation of the middle school PLC meeting, this work was visible "on the ground." Teachers in this content area grade level team used a protocol to guide their

examination of student work, and made significant changes to their instructional planning as a direct result of their joint work. Led by a trained teacher-facilitator, teachers in this meeting were able to look collaboratively at samples of student work on a teacher-created common assessment, and examine the teaching practices that led to the varied student responses on an assignment that was given at the end of a commonly developed unit in seventh grade ELA. The sharing of practices among team members resulted in deepened and expanded instructional approaches to the use of a simple graphic organizer. As evidenced in the following quote, the use of a Venn diagram to promote the identification of text-based evidence was common among each team, but the collaborative and reflective dialogue among team members about scaffolding student learning enabled their collective understanding to become greater than the sum of individual members' contributions:

> T1: We did a Venn diagram on the board as a class.
>
> T3: I gave them the Venn diagram…but it started out more independent – what do you recall? And they each did it independently… and then we went over it as a group…and put it up on the board.
>
> T2: We started that way too, and then we took that diagram, and we said ok, find it in the text. Find your textual evidence for this…Let's write it. What page? Take notes.
>
> T1: Oh, we didn't even do that. We didn't go to that level with it, as a class. I like that. I really like that.

In our interviews across all levels throughout the district, a clear and focused articulation of three questions drove the work that Cordova educators participate in

collaboratively."…What do we want kids to know and be able to do? How do we articulate that? How do you we know they're learning?" With a focus on these questions, Cordova Public Schools connects the vision of continual improvement of practice to a relentless focus on learning for all Cordova students.

District supports for a culture of psychological safety. "Classroom observations can be a powerful tool" for improving classroom instruction and advancing the professional growth of all educators (The MET Project, 2013, p. 16). Several district and school leaders articulated a belief that creating a learning environment that is psychologically safe contributes to teacher development. One central office administrator articulated his positive intent with the educator evaluation tool when he stated: Supervision and evaluation isn't a tool of getting rid of teachers, it's about improving instruction. . . and develop a nice relationship, we're all in this together.

One principal explained how she attempts to foster a culture of safety so teachers in her school would not be afraid of taking instructional risks:

> I might not know this or I'm going to make a mistake here and it's okay and for teachers to know that too. Teachers can be very hard on themselves. We're trying this new writing program . . . So you know if you have to go slower, you have to figure it out, you have to modify it. It's all O.K. At least we're doing something, you know, so that's a kind of cultural.

One veteran middle school teacher shared how teacher walkthroughs contribute to this culture:

> Again . .it's become a culture. It's normal. It's not that once or twice a year where somebody comes in and they tell you and… you're ready with your lesson and tell

> the kids this is a walkthrough. It's what's happening at that moment and it's [feedback] so useful.

Thus, there appears to be a concern for the psychological safety for adult learning, as well as student learning. We found a common perception that everything teachers and administrators in Cordova do is guided by "just what is best for kids." This shared belief helps to buffer any negative impact, which might result from staff expressing differences of opinion. Multiple respondents articulated their responsibility to model and adopt a value-based district mission. For instance, RAISE is a program in the district that promotes character building and civic responsibility among students across the district. A middle school teacher leader articulated the district values she thought promoted psychological safety for teachers and students:

> We do have the whole… the RAISE piece that is for the children. So that, it stands for Respect, gosh, I can't think of the A, Inclusion, Service, and Empathy. And those are values that I think we as a staff try to uphold and also pass on to our students.

At the elementary level, an administrator supported that same belief about psychological safety:

> . . . in Tyler, we've incorporated those into a school constitution that all of our students have signed. So, that's kind of… the values of it, the vision going forward, I think we are always striving to get these kids the best education that we can give them… it's part of the culture of the school.

Evidence suggested that district administrators worked to minimize the negative impact of the new mandated Massachusetts' Teacher Evaluation Tool. As noted by a

central office administrator, ". . we're really ahead of this. We developed a new tool a couple years ago . . . It just needed minor tweaking [tool]." These district actions helped to preserve and foster a culture of psychological safety for educators. The care evidenced in rolling out the evaluation tool was most evident during the observation of the summer leadership retreat in August of 2013. During that retreat, administrators spoke of the collaborative work with the union on the design and implementation of the district evaluation tool (See Appendix F).

There was also evidence that some administrators modeled collaborative learning in the implementation of this new educator evaluation system:

> We also did a ton of work with the supervision and evaluation committee, which consists of teachers from every level, the union president and principals from every level around using the tool and what the philosophy [intent] is. We spent hours and hours and hours going every page of that tool.

Summarizing the superintendent's views, which were corroborated by other respondents, Cordova appears to have escaped some of the negative pushback and teacher overload that some districts in the Commonwealth experienced when Massachusetts mandated the Common Core standards and new Educator Evaluation. They accomplished this by purposefully scaffolding the implementation to show the interconnectedness and provide focused strategic action steps. These district actions may have contributed to a school and district culture of safety and relationship-building that is important for the development of collaborative instructional investigations into teaching and learning. These actions also helped structure the use of this evaluation protocol (See Appendix G) to support educator professional growth.

District supports that provide opportunities for educational leadership. The philosophy and intent behind the work of professional learning communities is to transform the culture of the district by shifting educator mindset from one of instructional isolation to one of collaborative inquiry that fosters academic dialogue and instructional risk-taking, leading to broad-based instructional leadership. The role of instructional leadership is not limited to include school or district administrators (Leithwood et al., 2004). At some sites, researchers found evidence of effective distribution of instructional leadership in Cordova, which resulted in the creation of an environment of student and organizational success. Such practices included individual and collective efforts to complete tasks involved in the monitoring and improvement of teaching and learning.

Evidence was found that Cordova administrators viewed educator learning and application through the concept of "educator as researcher." Staff who attended external, high quality, evidenced-based professional development sessions were encouraged to return to the district to provide professional development workshops on what they had learned and to share their experience. A lead teacher shared his experience:

> So we went to this special education summit in the middle of October and it was like knowledge is empowering and so it was a bunch of attorneys. There were like five presenters and they pretty much ran us through many facets of what our job entails and it wasn't just ETLs, it was SPED directors, assistant directors, principals but those legal things that we face. And so I felt very empowered and I feel… the meeting went well.

A teacher respondent echoed another opportunity to engage in external professional development in this statement:

> . . . we started a new writing program. I was fortunate enough this summer to go to the Home Grown Institute through Teacher's College Reading and Writing Project with a bunch of my colleagues from here, and start the whole Lucy Calkins Writer's Workshop in my classroom.

The teacher provided information that professional development in Cordova is an ongoing cycle of inquiry that is expected to be shared beyond the district as well:

> The writing course, which is also, not only did we do it this summer, but it's continuing
>
> With the PLC throughout the school year, which has been great. We're actually working with teachers in Bluestone, so we meet every other month either in Bluestone or Cordova. We just met last week. It was great to sit down with other kindergarten teachers and say 'oh, I did this and it really worked' or 'how are you setting up in the classroom, because I'm doing this and it's just not working,' just to sit down and bounce ideas off of each other, share what we've been doing, that kind of thing.

By creating and maintaining a culture of teacher and administrator empowerment, positive relations and psychological safety, Cordova nurtures the continued growth of all District educators. By granting the request for teachers to go observe and discuss other districts' writing practices, the District has committed resources and time to support this educator's instructional inquiry and risk-taking.

District support of ensuring approachability of administrators. The Cordova School District has made progress in establishing the conditions necessary for teacher engagement in collaborative conversations around student work and curriculum inquiry

and instructional risk-taking. Administrators and teachers offered testaments to the District's cultural evolution:

> For instance, I do believe some of the best movement in practice has occurred over the years at the middle school. But we began training facilitators in protocols six years ago at the middle school and they really bought into it, more so than anybody else. The high school in the past two years has. But, again, you see you're working.....counter to culture and we all know high school cultures are tough to move. They have been relentless over the past year and a half in the use of protocols to have those discussions. You will see over time the belief is changing.

One teacher supported this statement.

> So, as a kindergarten team, at the end of last year, we sat down with the reading teacher and with Noreen and, you know, they kind of said to us, 'this is what's working; this is what's not; this is what your literacy block is going to look like next year.' .....I said, I've been doing this work board. I feel like it's chaotic; the kids aren't getting anything out of it anymore....I was looking at the Daily 5.' 'Oh, they do the Daily Five in Beantown.… maybe I can talk to the teachers there and arrange a visit.' So, we went….

A psychologically safe environment assists in motivating educators to initiate and direct their own professional learning (Knowles, 1980). Also, this culture of safety provides individuals the opportunity to learn from their errors without any worry of reprisal or loss of self-esteem. The data indicate that Cordova supports innovative instructional practices and encourages their staff to take instructional risks. School leaders, who model openness

and understanding, send the message that sometimes we fail but we are able to learn from our mistakes through the reflection processes that lead to improved instructional action plans. A teacher shared this reflective process and demonstrated how it led to a change in her instruction:

> I think one of the times is when you plan something out, and it goes nothing like you anticipated, and you really have to take a step back and say 'Wow! That really didn't work!' One of the things that I did this year in going along kind of that whole responsive classroom thing: those first six weeks of school, I stepped even further back than I ever had in practicing routines with my students. And I have to say: it really has made a huge difference, I think, in the behavior and in the functionality of my classroom.

Another teacher underscored the supportive relationship with her principal:

> Again … this is her second year here as principal, and I think she has been, for me personally, very supportive both informally and formally. You know… her door is always open, if you need to just check in real quick. I think she's also a very good communicator, which is very important in a leader. You know, if there's a problem, she'll let us know what's going on, or, you know, help, if it's something (in the) classroom, she's very quick to help resolve it. So, I couldn't be happier with her leadership that she's shown.

Teachers are not the only educators to experience freedom to direct their individual learning and professional development. One building level administrator validated the actions of a district level leader modeling of collegial, collaborative discussion and healthy approachability by encouraging others to investigate their

instructional ideas to direct their professional growth. By prioritizing time to listen and discuss an administrator's innovative idea, this district-level leader modeled collegial respect for educator expertise by the prioritization and allocation of his time and attention. Such demonstrated leadership actions nurture educator growth and foster respectful learning partnerships by first establishing the conditions of respect for expertise, trust, and autonomy. By enabling teachers and school-based administrators to use their expertise to create their own professional development opportunities, district leaders provide a venue in which they are able to grow future teacher leaders where they can share this learned instructional and content area expertise with others. The following excerpt reveals how Cordova provides these teacher-leader learning opportunities:

> I feel like if I talk to Murphy or Sullivan about something that I'm interested in ... (for instance) no one else was talking about the reading and writing project, and they supported me going in. We went over for verification and got sort of my first taste of that. They supported the institute. They've supported the PLC with Bluestone. They've supported me going to the leadership. So definitely, if I bring something forward, I think they've come through, and Murphy was really pleased when he saw the kids reading and the stamina and looking at that whole Daily 5 piece. So I definitely feel like if I have some ideas and, you know, can talk about why I want that to happen, they definitely have been very supportive.

Nearly all educators interviewed provided data to support that a collaborative, collective, and commonly shared vision was a district expectation. These district supports are characteristic of what Little (2006) describes as an established professional learning community.

These research findings support the belief that the district values and respects the expertise and professionalism of their faculty. It was also found that the central office leaders possess the same belief and confidence in their site-based administrators to be experts and credible instructional leaders. This was evident when one district level leader was willing to listen and collaborate with a building-level leader around a curriculum issue. A site-based administrator confronted the content inadequacies of a newly purchased reading program with a District leader:

> When I came here as a SPED person, they had just adopted the Reading Street program. I have a special education background, so I have a fair understanding of reading and reading development, in terms of programs, not so much. My gut feeling, when I saw that, was I had concerns about how and what they were reading. There were also benefits to the program I felt. There were good things I saw. So we, over the course of time I've been here, we're working, and Murphy has approved this, that Reading Street is more of a resource than a program. Because when it first came, the people were trained and they had to use it by the book. I also have started doing a lot of work with writing.

This passage demonstrates that leadership permitted teachers to modify a scripted curriculum, thus valuing their expertise and knowledge about their students' learning needs. This principal shared the ways in which empowerment filtered down to improved instructional practices within the school.

> We've formed a PLC with Bluestone. We shared the training with the Bluestone teachers. We had our first meeting two weeks ago. We have another meeting coming up in November, so there's some really exciting work coming out of that.

> . . . I attended the training myself with the teachers, because how can I support them if I don't know what the expectations are.

This type of administrative action builds teacher efficacy and supports curriculum decision-making as teachers collaboratively accommodate the needs of students in their implementation of the newly adopted reading program. This type of embedded group learning facilitates the building of what Hargreaves and Fullan (2012) call "professional capital," which is a more advanced form of a professional learning community in which teachers "challenge each other as well as challenge their leaders as part and parcel of the give and take of continuous learning (p. 132). It is clear from strategic actions described in staff interviews that district leaders fully embraced the responsibility and commitment to create conditions that support collaborative inquiry about curriculum. These supportive behaviors enable district leaders to advance to the next level of collaboration on Little's continuum of collaborative practices.

Administrators interviewed shared a collective belief that meeting time for teacher collaboration should be preserved and that "staff meetings" should be eliminated or kept to a minimum. Most school-based leaders provided evidence of a general agreement and shared philosophy to protect the use of after school time for meaningful collaborative purposes:

> My experience with teachers has been if you provide them with quality professional development and you work on those types of things, they feel more empowered, and I think that's critical.

District support for relationship building. Relationship-building appeared to be prioritized at all levels within the Cordova School District. One new secondary school educator shared the support he receives from his principal:

> It's a very… safe feeling that we get from people above us. It's very nurturing. It seems like I've never gotten the vibe that, I don't really know how to say this stuff. I personally haven't been encouraged to go out and start this stuff yet, but they know where I'm at in school and my own education.

Another novice teacher explained how the school leader facilitated her professional development by taking on the unofficial role of mentor. By investing time and interest to observe her instruction and engage in open, nonthreatening, academic discussion, the teacher developed a positive perception of the leader. The teacher recognized the time and effort expended by this building level leader, and valued the benefit she received as a result, and noted that "she will come into our classrooms. She gives great feedback, is always willing to help out with things, so I think, you know, that's kind of another example of a mentoring program." This type of caring behavior creates positive interactions among staff and works to establish trusting relationships that welcome disagreement within a context of respect and professionalism. A building administrator explained that on one hand she knows she must create a healthy school culture; and on the other, she must have collective and individual accountability for student and teacher growth. This creates a tension she faces in balancing the delivery of positive and negative feedback. Feeling empathy towards her staff and preserving the trust she established, one administrator noted how "difficult it can be to give very explicit, very clear feedback" and how she did not want anyone to feel like they were "doing a bad job, or not trying

hard enough, or any of those things." She elaborated on how, although she continues to work on providing feedback, "One of the things I think I have in my favor is I think the teachers here trust me, so you can't do that if you don't have that trust there."

One district-level leader provided insight into the internal and external forces that facilitate the development of positive relationships as part of the District culture.

> . . . So community- wide I think we've done more with less, but it's also a place where people have created a culture and a community that they care for each other. They care about our students. They're passionate about many things in this community. Parents are supportive, and I would say that teachers really go the extra mile to help folks out when they need it.

By fostering a culture grounded in positive relationships and collegial support, principals and district administrators appear to have built an atmosphere of collegiality and collaboration. In order to do so, building level leaders have taken the lead in developing a supportive atmosphere for their teachers, and teachers in turn work with each other collaboratively.

Sub-question 2: What leadership behaviors and structures at the school and district levels do teachers and leaders perceive as most beneficial to improvement in teacher practice and professional development?

Since collaboration is a major focus and vision for the district, the superintendent holds each member of his leadership team accountable for ensuring that structured and unstructured collaborative practices take place around improving teaching and learning. The superintendent believes that principals are responsible for facilitating, encouraging,

and supervising collaborative behaviors, including grade level meetings, departmental meetings, or other group meetings to review student work or examine data.

Collaboration as the focus for improved instruction. The superintendent in Cordova has adopted Judith Warren Little's work as the main focus and vision for his work in the district with teachers. Collaboration is a standard, an expectation and, in his words, a "non-negotiable." New teachers, from day one of orientation, are told of Little's research and given the expectation that teachers in the district are expected to collaborate with each other with the goal of improving instruction. In turn, district leadership not only facilitates collaboration among building leaders and provide the structures and opportunities for it, but also expects principals to lead and facilitate collaboration in their own schools. The superintendent believes in the importance of collaboration with the purposeful creation of and support for regular, meaningful, collaborative meetings with job-embedded professional development. One new teacher notes:

> … the professional development that's built in is huge if you're a new teacher because you're going to learn so much from the onset about what you're doing in your classroom and what it looks like in other classrooms.

A high school teacher describes the structures in place for collaborative meeting time:

> ...last year the collaborative time was in the morning... It's done informally, but it's definitely happening… if you come to my office any morning it's like Grand Central Station… Then after school people might have questions or come in. A lot of people stay here late... We also have interdisciplinary classes... Those teachers are always collaborating as well because they're team teaching.

While each school in the district differed in terms of the structures present, frequency and

effectiveness of collaborative time, teacher participants identified the principal's use of faculty meetings as a time to think about their practice and learn how to utilize other collaborative times more effectively. All participating teachers and administrators unanimously identified collaboration as critical to improved practice and their development as reflective practitioners.

All participants, from teachers to the superintendent, expressed strong positive feelings about the importance of collaboration in improving teacher practice. The superintendent shared his view on the importance of collaboration for ongoing teacher growth and improved student achievement:

> I spent a number of years talking about levels of collaborative practice with the rubric that was developed with Judith Warren Little's work. Only joint work, which is really the work of what PLCs really are. When you get to that level… we're highly collaborative. So putting those elements together is absolutely critical for the leadership team, critical for teachers, and most importantly all teachers need to know that we're all involved in the same type of work. Some levels (and) some schools may be at a higher level right now than others, but were all moving in the same direction.

For district leaders collaboration is not a choice but rather a requirement. Leaders could determine the timeframe, but not whether or not collaboration will occur. The superintendent was not shy when he shared that "this is not the place for you if you will not collaborate." Building leaders also emphasized the focus on collaboration. One principal stated:

> I look at [collaboration] as it's the foundation. And, the more they [teachers] do it the better they get at it. And my job is to make sure they do it and continue to explore student work. And the more they become comfortable, and the more they work it through, the more apt they will be to improve their practice.

This principal perceives her job as facilitating the practice of collaboration and ensuring that it occurs. Results do not offer data to support that the leadership team collaborates without the facilitation of the superintendent. Furthermore, this principal supervises collaboration among teachers and helps when necessary, although there is no evidence to support that she is in a position to act as a peer collaborator. A building assistant principal shared ways that teachers can practice collaboration as well:

> [Collaboration] is a tremendous piece of their professional development, and again I keep going back to these planning periods. Teachers have a subject plan. They have the team plan. If they are on a team that has a co-taught special education teacher on it they have a plan to meet with them and it's all about collaborating. So they have collaboration to talk about students who are progressing. They have collaborations to talk about their core content with their colleagues. There is opportunity for collaboration every day.

The assistant principal discusses how collaboration is critical piece of professional development for teachers, and the school has built structures into the school day to allow for collaboration.

Teachers highlighted the specific impact they perceived that collaborative discussions with other teachers had on their practice. A novice teacher shared that her professional learning comes from "just sitting in and talking with them about what

they've done and what not… That's where the bulk of everything is coming from just learning firsthand what they've done… what works, what doesn't, what can I do…Collaborative practice was viewed as contributing to his development as a novice teacher and improving his instruction. Another novice teacher discussed the importance of collaboration in her instruction:

> This is the school I've done the most collaboration with… the autistic behavior program… the outside extracurricular stuff like... geography, the musical, everybody in the faculty is so good about helping each other out. I kind of wish that the other teachers had moments where they could come and sit in my class for a little bit and see what the difference is, but that's a hard thing to do with their own classes too.

As evidenced by this novice teacher's response, collaboration is a culture encouraged within the building. This response honestly discusses that persevering through these tensions is ultimately valuable for teachers. Another veteran teacher stated her view succinctly, "I just think collaboration is one of the key elements of professional learning." The face-to-face meetings and sharing effective practices is important. As this teacher noted, it does not just happen, one has to persevere for collaboration to occur meaningfully.

School-based collaboration. School-based collaboration, including grade level or department and faculty meetings and early release days for professional development, provided opportunities for teachers to work with each other. Teachers and administrators from elementary through high school believed in the importance of collaboration; yet, how time was scheduled for collaboration and the topics that teachers addressed during

collaborative time varied by level. Topics commonly addressed across levels included reviewing student work and curriculum planning, including standards-based unit development, common assessments, and adjusting to the common core standards.

School-based structures for collaboration included grade-level team meeting time during the regular schedule in the middle school; teachers are provided with 45 minutes per week to meet as a department. In the high school, department meetings are held regularly. The elementary level provides a once per month meeting time of 30 minutes for teachers to meet, facilitated by the principal. The district scheduled three professional development days before the school year began and scheduled one early release day per month.

The superintendent acknowledged that principals need to play an active role in promoting a supporting collaboration, but it will not just happen. Principals also require guidance and support to be able to lead effective collaboration in their building. Therefore, the superintendent discussed the importance of modeling the use of protocols to facilitate collaboration with his leadership team. This type of leadership behavior allowed principals a place to learn how to foster a collaborative atmosphere while demonstrating the superintendent's role as an instructional leader.

In their interviews principals discussed how they fostered collaboration through team meetings. For instance, the middle school principal shared how she both measured and supported her teams' engagement in meaningful collaborative work:

> When I look at the social and emotional growth of the teachers, when I look at them in collaboration, I looked at some groups just sailing and other groups really struggling. The ones who struggle I go to all of the meetings. The ones who sail I

> stop in and they ignore me. It's great and it's the best compliment I get when I walk in and they don't even bat an eyelash, they just keep going and that's one of the growth indicators for me.

Recognizing that some teams struggled with collaboration while others worked easily, the principal realized that struggling teams just needed more support and guidance while others did not. The middle school was widely regarded by district leadership as having the most advanced levels of collaboration when considering the frequency and meaningful use of collaborative time. Participants from the middle school and central office regularly referred to the varied forms of collaborative time scheduled at the middle school. One teacher shared, “They developed a schedule like three or four years ago where they rotated it through. They did a really good job. So you get a team and a department every week and that's on top of either afterschool meetings or professional development half days.” An administrator shared, “We have shifted from the traditional team plans as a priority to the [departmental] plans, so every week every subject area meets and it’s scheduled and they have 'do notes' and they have to share.” A middle school teacher new to the district referenced the value of the weekly team and departmental meetings noting, "It's definitely improved [my practice] definitely, definitely, definitely. If I had been taken out of those meetings I wouldn't be as good a teacher as I am now…. It's really been crucial." This teacher provides a strong view of the importance of the team meetings and how they improved her practice. As demonstrated by the middle school teacher’s quote, the meetings were perceived as a structure to help teachers grow professionally. The value of these collaborative meetings is clear among all teachers and administrators with varied levels of experience.

At the core of collaboration is the need to improve instruction and student learning, and the principal highlights this goal. In addition to trained facilitators, the middle school administration makes attending collaborative meetings a priority. Teachers also highlighted the attendance of administrators during their collaborative meetings. The principal noted:

> We have structured ourselves, the three of us, where we attend them, as many as we can. I discovered last year accidentally, that even though I didn't do anything, my presence made the teachers feel like this was important. The same thing with my assistant principals… And so by us coming or going to those meetings, it right away brought it from, 'oh my God, do we have to do this' to 'this is important.' And this was huge. This was really big.

The principal fostered a collaborative atmosphere that focused on the value and significance of the work. Her presence served as reason enough for teachers to take the work seriously. While not all schools worked at the same collaborative level, the superintendent maintained collaboration as a district goal.

The superintendent, leaders, and teachers established a collaborative mindset through work, protocols, and structures, thus creating common assessments, reviewing data, and building professional development with students at the center of their ongoing, collaborative practice. The superintendent further explained that his experience has taught him that engaging in true collaborative work, such as looking at student work, creates trust faster than anything else. He notes this below:

> It was interesting when I was first coaching critical friend groups we were doing a lot of falling into your arms, all this type of trust activities. The first time, after

> couple of months, we used the protocol to examine student work. One of the teachers, who is the most reluctant to do anything, said 'that experience built more trust in 45 minutes than we have done in the past three months.'

Building trust takes time and practice, but the superintendent perceives that the quickest process for building that trust and creating a safe environment was by utilizing protocols to examine practice though the lens of student work.

Teachers engaged in collaboration with colleagues across schools:

> We usually meet with our (subject area colleagues) on PD days… and I find that really helpful.....What are the high school teachers seeing that we need to work on at the middle school and what are the middle school teachers seeing from the elementary kids coming up… I'm seeing that the kids really don't understand this and don't understand that. That's really helpful within the district stuff.

By providing structures for articulation across the district, district leadership fostered a collaborative atmosphere between all levels of teachers. Without these formal structures it is highly unlikely that teachers would have been able to meet and collaborate regularly. A secondary teacher explained the meeting structures in place at his school:

> Monday is team time and then Tuesday through Friday is the department. They rotate departments through Tuesday through Friday. Whoever has a department meeting doesn't have lunch duty. So they have their lunch and they get a prep and they alternate that out. Yes, they developed a schedule like three or four years ago where they rotated it through. They did a really good job. So you get a team and a department every week and that's on top of either after school meetings or professional development half days.

These structures established valuable and productive time for all teachers, but one teacher described a limitation to his collaborative time. He felt that more time to meet with teachers in other grades or vertical collaboration would be beneficial.

> They want us to collaborate. I wish, we have to fight to collaborate vertically, top to bottom. That's a battle to get [grades] five with six and get eight with nine. That's really hard. I wish that was done more and there's a new thing this year, a new initiative to link eight to nine.

A secondary teacher also discussed his department's interaction with the principal during department meetings, and how she checked in to monitor the team's progress and refocus them:

> [she] will come to a lot of meetings, a lot of department meetings and she'll ask opinions but there's usually something coming from above so she's kind of saying, okay, but this is where we're going and this is what we need to do… She does take our feedback… But sooner or later the teachers can, there has to be decisions from above and I think that's okay. But they seem pretty open with us.

The district's initiatives concerning common units of study and assessments are set as a top down structure for building leaders to facilitate and monitor the work completed at the teacher level. Principals nurture the development of team effectiveness by differentiating their support and involvement, thus giving more direction to teams who are still internalizing the use of norms and protocols (See Appendix H) while leaving more skillful teams to work independently. A secondary principal discussed teams that work independently:

> .....some groups just sail and other groups really struggle. The ones who struggle, I go to all of the meetings. The ones who sail, I stop in and they ignore me....it's the best compliment I get when I walk in and they don't even bat an eyelash, they just keep going.

Another secondary teacher explained collaboration in her school, focusing on informing practice through student work and sharing good practice and supports that promote student learning.

> …we are a thoughtful faculty who looks at student work to inform our practice. That we collaborate so that we share good practice with each other... I think that kind of like positive collaboration brings about a great deal. We have collaboration probably once a week about an hour at a time… we look at student work that way and we also look at assessments that way.

The assistant superintendent modeled this continuum of inquiry into student work by sharing the MCAS student achievement data with the high school leadership team. A department head brought the data back to her team for collaborative problem solving and action steps, which would adjust the curriculum to address student needs:

> Two weeks ago I looked at the MCAS data with the leadership team. Then based on those scores and what I saw, I ran off the long comp from kids… and we as a department looked at that. So like what do we need to do to challenge these kids more so that they do better on the Long Composition.

This experience of using data to inform instruction exhibits a high degree of collaboration with colleagues with the ultimate goal of improving student outcomes. Structures across schools aided in this collaboration.

> We have early release days, so the kids get out on Wednesdays, I would say twice a month at 1:00. We have from 1:15 to 2:15 to collaborate as a department. On the half days that are usually through the district, district-wide half days, most of that is collaboration.

Two hours a month is specifically devoted to collaborative time with department colleagues on early release day in addition to weekly meeting times.

As part of the district's vision, collaboration permeates the culture and fabric of the faculty and administration in Cordova. Teachers live out the vision through collaboration in their professional lives. Furthermore, the district provides the structures and conditions conducive to collaboration among teachers and between administrators and teachers.

Prioritizing time and resources for collaboration and professional growth. The Cordova School District has faced fiscal challenges for the last several years which have resulted in reductions in staff, increased class sizes across all levels, and restructuring of programs in order to maintain services. The district's constrained budget has resulted in difficult choices. The district has a number of part-time professional staff including part-time specialists at the elementary level and a kindergarten coordinator that works one day a week. One teacher shared that in recent years the number of special education team chairs have been cut and this has impacted her caseload from fifty students to one hundred thirty students. The one elementary school that participated in this case study has lost five of the six teachers and tutors who provided reading support and both the math teacher and tutor positions have been eliminated in the last five years.

All participants acknowledged that school and district leaders made collaboration and professional growth a priority. Participants identified time for collaborative meetings and the development of skilled facilitators at each level to structure these meetings as priorities within the district. The training of teachers as facilitators at the elementary level has not taken place. As a result, elementary principals are facilitating grade level meetings or the meetings are informally structured without the benefits of shared norms and routines. The superintendent identified increasing the number of skilled facilitators to lead grade level collaboration and curriculum development especially at the elementary level as a priority area. In spite of this recognized area of need, there was strong understanding and appreciation of the administration's continued efforts to expand and enhance the quality of collaborative, job-embedded, professional learning. Yet many participants identified limitations in district funding as a barrier to collaboration and improved practice.

Allocating an increased number of early release days for professional collaboration was one of the ways the district enhanced a structure to prioritize time for professional growth. One principal shared:

> We actually didn't have half days every month when I started here seven years ago. I think we only had three. So over the years they've made it a priority and they've gotten the community to recognize that although they don't like it, that teachers need time to work together on either the curriculum or improving their practice and you can't expect that to happen during the school day…So I think the district has done a good job putting that message out there, if this is really what we value then we have to give people time to do it.

The superintendent explained how prioritizing time through early release days resulted in a broader understanding and acceptance of the need for faculty to work together. "The school committee … used to complain about early release days. Parents used to complain about it. We have added more. The committee is not complaining because we have them sold on the idea this is what you need to do to improve professional practice."

The middle and high school have created structures in their schedules with additional early release time that allows teachers to engage regularly in facilitated collaborative meetings. During the school day, as a benefit of a middle school structure, middle school teachers meet together weekly, not only as a grade level team but also by content area. The high school held weekly departmental meetings during the 2013-3014 school year, but due to teachers' concerns about meeting times, teachers and administrators negotiated a mutually agreeable compromise, which allowed for regular and meaningful opportunities for departmental collaboration. As a result, the high school has two early release days per month which allows teachers to meet by department two hours a month. Both teachers and administrators identified this compromise as testament to the shared belief that collaboration is valued and important to continued teacher and district growth. One high school teacher explained:

> We started… last year with collaborative meetings twice a week. It was difficult because it almost got in the way of (our work with students) …There was a concern about that and they did get together with the union and talked about what can we do, how can we do this better. So … they came to an agreement and every two weeks we get out at 1:00 at the high school and meet in professional development with the professional learning communities and continue the work in

> an hour and fifteen minutes. So rather than having two 25 minute times during the week, which was very hard with teachers because it brought them right up to the time their class started … So now we're at the every two weeks 1:00 dismissal.

Conversely, administrators and teachers highlighted that the elementary schools have the least time in their daily schedule for collaborative meetings and rely heavily on eight early release and four full professional development days each year to do collaborative work. The superintendent reported that each elementary school had varied ways of assuring collaborative time for grade levels to meet. The elementary school participating in the study assigns specialists to rotate through classrooms during morning meeting in order to provide grade level teachers thirty minutes to meet with grade level teachers. Elementary school participants referred to common planning time with the principal, which occurs once every three weeks, as the most structured and consistent collaboration within their school. In addition, teachers on the same grade level have one preparation in common which they may choose to utilize for collaboration, but it is not required. The superintendent explained in his interview that he believes there is a need for more collaborative time at the elementary level and shared one specific solution to provide an additional preparation time for grade-level collaboration. By hiring librarians at the elementary level he would create an additional 45 minutes per week for elementary teachers to collaborate. Yet, he shared that the challenge is a financial one and unlikely to materialize, as it would require an additional $120,000 in the budget.

The actions taken by principals to prioritize time and resources for professional growth and collaboration were perceived as critical, especially during tight budget

seasons. The middle school principal shared how she prioritized collaborative time through difficult budget years:

> I made a significant shift [to the master schedule] quite a few years ago …because I valued [collaboration] … I preserved collaboration time … even through the bad budget years, I would not touch it… in the past couple of years the schedule has been pretty much the same.

While participants identified different areas for improvement based on their position, they recognized that professionals with a learning mindset would always identify areas where more time and resources were warranted. One participant characterized it the best.

> I would say that the negative piece of it is that teachers just don't, even though they have planning periods and they have team planning, there is just not enough time in the day, for all the initiatives that are in place for them to feel like, while we're moving forward with something, there's just always something else. You never feel like your work is done. It's part of the nature of the beast.

Administrators also prioritized time by creating narrowly focused professional learning activities or school initiatives. The majority of participants referred to the use of faculty meetings as time utilized for collaborative learning to meet district goals and initiatives. Additionally, the middle and high school principals both meet weekly with their department heads and academic coordinators to discuss the current initiatives and provision for upcoming collaborative meetings.

Participants also provided examples of administrators valuing teachers' time and energy. One middle school teacher shared his appreciation of the principal's leadership

during the previous year's failed attempt to adopt and implement a standards-based report card.

> Most of us said we are going to buy in. It was a lot of work and then once we got kickback it stopped. It's a shame …and I've got to admit (the principal) recognized that we were exhausted. So she backed off. I think she did a great job. It was one of her better moments as principal.

One principal shared a misstep in rolling out the process for standards-based unit development and common assessments and the ways in which that incident reinforced her obligation to provide the resources and support to enable teachers to meet the professional expectations of the district.

> We looked stupid at a few points to the staff, like, yes, we wanted you to do this and now we're going to tell you, no, we're not going to do that anymore. And so we've tried to be very conscientious about not putting anything out to them until we vetted it all the way through. We all understood it and knew we could explain it to them, because otherwise it's not a pretty picture.

The principal's perception alludes to a level of confusion in the rollout of a district initiative. Data collected did not detail the central office role or the role of teacher leaders in the planning and implementation of these district initiatives. It may be worthwhile to examine how professional development planning occurs between district and building leaders. Participants from the secondary level highlighted how department heads (at the high school) and academic coordinators (at the middle school) have been beneficial to the advancement of collaboration and job-embedded professional learning. Because the elementary schools do not have grade level leaders or identified facilitators,

they have struggled to create sustainable structures that might support collaboration and professional growth. The superintendent acknowledged the need "to create a more equitable distribution of curriculum support" and shared his struggle with maintaining the department head structure, which he viewed as "only contribut(ing) to the high school" and not "the system" overall. While the data does reveal a gap in curricular support at the elementary level, the teacher and leader perceptions at the high school showed a connection between the facilitative, instructional leadership role of the high school department heads and the effectiveness of collaborative meeting times.

Use of protocols and facilitation to increase effectiveness of collaboration. Professional development in Cordova cannot be separated from collaboration or expectations for teachers and administrators alike as a district strategy to improve teaching and learning. The superintendent characterized professional learning opportunities within the district as part of "a disciplined, facilitated conversation." Cordova administrators have focused professional development resources and energy on developing facilitators and training staff in the use of protocols to increase the effectiveness of collaboration and professional growth. One teacher shared the process her department regularly utilizes using protocols to keep the conversation focused on instruction to improve student learning: "As a department, we look at common assessments (at the) grade level, and then after we've done that we look at common assessments within the department as well. Like what have we learned." She further explains how protocols have allowed her department to regularly examine student work:

> For the last maybe six years we've looked at student work as a department … to make sure that we're all on the same page… We're in the process now where each

> one is bringing a problem with a student to the table and we discuss that as a whole group. We've done strategy shuffle with them like, "what do you do when you have an issue?" We write it on a piece of paper and everybody adds a bit of advice.

The superintendent explained how protocol use came to be widespread in the district:

> ....the DI course was designed around....using protocols for … looking at student work, but it's really looking at the teaching practice through the lens of student work… the second year around they created a critical friends group....(and) protocols for text-based discussions … it comes down to a disciplined facilitated conversation.

The superintendent viewed protocols and facilitation as inseparable from and essential to the depth of learning and change that can occur within a team as well as the overall organization.

> We have to be seen as leading the charge through a systematic structure. That's why protocols are critical because it's about a disciplined conversation; that will get us from "What does the data say?" to "Where do we see kids need to improve?" to "What are we going to do differently?" We can't stop at the data.

A middle school teacher shared that the agendas and protocols have created a focus for the collaboration time in his department. He also shared a challenge he faces in sticking with the protocol he is charged with facilitating; "The principal … will often set the agenda and we know what we need to do. Some departments are better than others at holding that and sticking to protocol. That's one of my weaknesses…" He further

explained that he is a team member and wants his voice to be heard equally with his peers; therefore he is flexible with the protocol.

While the majority of participants referred to protocols in their interviews, there was little discussion of the frequency of protocol use or how protocols were used within collaborative meetings. Teacher participants from the middle school and high school referred to protocol use more than elementary participants. One high school teacher shared an example of how a protocol which was used following training helped her share new knowledge with her department members.

> I came back and I just did … a museum walk… I learned about bringing content literacy into the classroom based on the common core, and so the teachers walked through that… I have a list of things they want to know more about that we haven't been able to address yet.

In addition to consistently scheduling collaborative time, the middle school, which trained facilitators and embraced the use of protocols six years ago, has continued to refine the use of protocols to make school-based collaboration effective. This use of protocols has brought them to the level of "joint work" (Little, 1990) on a more frequent basis than the other schools in the district. The middle school has academic coordinators, which are stipend positions "to help move forward with curriculum planning and instructional practice." The coordinators meet weekly with school administration "to discuss steps we're taking in each department and school-wide to move forward." The superintendent confirmed what the middle school teachers and administrators highlighted: "I do believe some of the best movement in practice has occurred over the years in the middle school. But we began training facilitators in the protocol 6 years ago

at the middle school and they really bought into it, more so than anybody else." A middle school principal shared her stance on utilizing collaborative meeting time.

> I try to structure my teacher meetings all through the lens of student work, student improvement and improving practice. Rarely do I stand up in front of my staff and have a faculty meeting, rarely. It's always connected to student learning. Everything else is done through a different vehicle of communication. I try to show them that if we're going to have a face time meeting it better be about student learning. It's about that kind of stuff. I try to, not always, it doesn't always work, but that's what I try to do.

Data collected at the one elementary school in the study revealed that collaboration is not attaining the level of "joint work," which is the superintendent's aspiration for professional collaboration. This is due in part to the schedule and in part to the lack of identified and trained facilitators. The elementary teachers interviewed shared that either the principal facilitated collaborative meetings or meetings took place without administrative participation. For the elementary teachers to meet the expectations of "joint work," more trained facilitators are needed. The superintendent acknowledged this need and explained that we're trying...to be able to have a stronger core of facilitators.....we want to train the facilitators to be able to use these tools well, but also understand the model that we are promoting in Cordova."

To facilitate teacher meetings among departments and grade levels, a secondary teacher explained how her group used protocols to review student work:

> We have these neat protocols that we were introduced to last year. Again, some people didn't love them but they give a real kind of organized approach to

> what you're doing. Instead of just throwing a piece of work out and going okay, there's a process. The one that we use for student work is everybody, whoever is responsible for bringing the work or the assessment that day, will bring a piece and pass it out to everybody. Everybody takes five minutes … to read it. Then we go through the group and everybody expresses warm feedback, something positive, and then cool feedback and then take away a reflective question on it.

Although the development of a psychologically safe environment to foster and support collaboration through relationship building and joint work served as the major group finding, individual studies drilled down more deeply into the data to examine specific functions, structures, or supports for professional growth in the district. Individual sections delve into the relationships, structures, and modeling that supports new teachers; the type of reflective questions and processes employed by district leaders with teachers; the leadership vision and use of PLCs to build the culture of collaboration; and the feedback processes employed to encourage teacher growth. The following sections of the study discuss these individual analyses as a subset of findings using the same data set.

CHAPTER 5

NEW TEACHER SUPPORT[5]

Statement of the Problem

This study analyzed the ways in which the selected school district supports new teachers through new teacher mentoring and induction activities. The importance of research on this topic relates to the need for school leaders to determine whether current programs for new teacher mentoring and induction programs improve teacher pedagogy, student learning, and teacher retention. Dufour and Marzano (2011) contend that the current problems in public education do not stem from an unwillingness of educators to improve. Rather, they claim it is a "lack of collective capacity to promote learning for all students in the existing structures and cultures in which they work" (p. 15). These authors highlight the importance of school leaders and policymakers understanding that "school improvement means people improvement" (p. 15). Novice teachers arrive to schools having completed pre-service learning courses and practicum experiences, but need ongoing support in order to succeed and feel supported. Ingersoll and Strong (2011) note that "the theory behind induction holds that teaching is complex work, that pre-employment teacher preparation is rarely sufficient to provide all of the knowledge and skill necessary to successful teaching, and that a significant portion can be acquired only while on the job" (see, e.g., Feiman-Nemser, 2001; Ganser, 2002; Gold, 1999; Hegstad, 1999, as stated by Ingersoll & Strong, p. 202). Quick to adopt induction and mentoring strategies for new teachers, school leaders noticed the value of supporting those entering the profession with a formal plan (Ingersoll & Smith, 2004). School administrators "can

[5] This section was written individually by Philip B. McManus, II.

influence both a new teacher's development and her socialization and enculturation" by establishing a "high quality, comprehensive induction program" (Moir, 2009, p. 31).

Many new teachers report participating in an induction program, and the rate has risen over the past two decades. Ingersoll and Strong (2011) report "that the percentage of beginning teachers… (who) participated in some kind of induction program in their first year of teaching has steadily increased over the past two decades—from about 40% in 1990 to almost 80% by 2008" (p. 202). As evidenced by the rise in the number of school districts implementing a formal induction and mentoring program and by recent research, formal programs help to develop, improve, and retain new teachers (Ingersoll & Strong, 2011; Ingersoll & Perda, 2010). "In recent decades, teacher mentoring programs have become a dominant form of teacher induction" (Britton, Paine, Raizen, & Pimm, 2003; Fideler & Haselkorn, 1999; Hobson, Ashby, Malderez, & Tomlinson, 2009; Strong, 2009, as stated by Ingersoll & Strong, 2011, p. 203). Furthermore, strong induction programs can greatly reduce the number of teachers who leave the profession (Henke, Chen, & Geis, 2000; Cohen & Fuller, 2006; Fuller, 2003; Smith & Ingersoll, 2004; Ingersoll & Smith, 2004).

In the target district of Cordova, turnover is relatively low, and few new teachers are hired each year. The Director of Personnel provided the most recent district data, which include the 2012/2013 school year to the start of the 2013/2014 school year. She notes that:

> We had **5 teachers retire** at the end of the 12/13 school year and **1 teacher** retire on 12/3/13. Five of these positions were replaced with internal employees due to transfers or elementary classes being reduced. We did hire 1 new teacher because

of the internal transfers and we also hired a new teacher to replace a retired foreign language teacher.

We had **8 teachers resign** at the end of the 12/13 school year. One of these teachers we DID NOT replace and 4 of these positions were filled with internal employees and we hired 3 new teachers. We had **2 teachers laid off** (one was a Library Media Specialist) and we were approved to rehire the Library Media Specialist back but she resigned and we hired a new LMS. Lastly, we had **3 non-renewals** and hired 3 new teachers.

As a result, the district hired nine new teachers and filled nine other open positions with internal candidates. For a district that employs 300 teachers, this means that only 6% of the teachers were new to the Cordova district this year.

Conceptual Framework

The framework for this study is based on Lave and Wenger's (1991) concept "Communities of Practice," in which community members utilize a social process to engage in new learning. Wenger's (1998a) scholarship espouses the belief that communities of practice are important to the functioning of any organization, especially those where knowledge attainment is a critical asset. School districts are complex organizations that rely heavily on relationships to improve practice and effectively meet the social and academic needs of students. How a school or district functions relies strongly on the quality of relationships of the members at all levels within the organization and the willingness of these members to engage in their work collectively. Hence, does the study's district support new teachers at all levels of the organization, and is there a community of practice that exists that helps new teachers succeed, grow, and

feel supported?

By gathering data from mentors, new teachers, and administrators in the target district, this researcher determined the results of mentoring and induction activities on new teacher development and the views of various educators concerning the programs in place. By highlighting educators' views concerning new teacher support and induction, the findings provide an important perspective to the current literature on how schools and districts attend to the professional growth needs of new practitioners in the field of teaching. The ultimate goal of teacher improvement is to improve student learning and achievement, and quality mentoring programs should help new teachers become better teachers.

Individual Research Question: What supports new teacher growth?

The purpose of this study was to analyze the ways in which the selected school district supports new teachers through new teacher mentoring and induction activities with the goal of answering the following questions: What is the district doing to build relationships with new teachers, and are new teachers supported by these relationships? What formal and informal supports are provided to new teachers? The importance of research on this topic relates to the need for school leaders to determine whether current programs for new teacher mentoring and induction programs improve new teachers' teaching practice. Do the programs improve teacher pedagogy, student learning, and teacher retention? Do new teachers feel supported by their mentor, colleagues, and administration? Are they provided with structures and conditions that allow for inquiry, professional development, community practice, and other supports?

Literature Review

New teacher mentoring and induction programs exist to help teachers negotiate the many tasks and challenges associated within the first one to three years in the profession. Many teachers leave the profession early in their careers or long before retiring (Ingersoll, 2011; Ingersoll & May, 2011; Ingersoll & Perda, 2010). Consequently, mentoring and induction programs exist not only to improve student learning and teacher pedagogy but also to increase overall teacher retention. Multiple studies address the issue of attrition and retention of teachers, finding that strong induction programs can greatly reduce the number of teachers who leave the profession (Henke, Chen, & Geis, 2000; Cohen & Fuller, 2006; Fuller, 2003; Smith & Ingersoll, 2004; Ingersoll & Smith 2004). Multiple activities exist within induction programs, but most commonly they include a mentoring program which pairs a veteran teacher or full time mentor with a new teacher. Quick to adopt induction and mentoring strategies for new teachers, school leaders have noticed the value of supporting those entering the profession with a formal plan (Ingersoll & Smith, 2004). Research in the district under study should aim to identify what types of support new teachers are receiving and whether current induction activities are worthwhile for new teachers.

Various research shows what currently works in schools to acclimate and support new teachers in the profession. Ultimately, new teacher support programs aim not only to support new teachers developing their expertise in the classroom, but also to improve student outcomes. “The goal of these support programs is to improve the performance and retention of beginning teachers, that is, to both enhance and prevent the loss of

teachers' human capital, with the ultimate aim of improving the growth and learning of students" (Ingersoll & Strong, 2011, p. 203). Rockoff (2008) found that teachers who receive more mentoring have students whose achievement is higher in both math and reading. Rockoff also argues that having a mentor-mentee match in terms of subject matter expertise does not necessarily lead to better student outcomes, except for perhaps middle and high school teachers. Roehrig, Bohn, Turner, and Pressley (2008) note that the most effective mentors observed in their study had, "more experience as mentors and were more effective teachers than mentors of less effective beginning teachers" (p. 699). Hence, new teachers and school leaders must carefully attend to the selection of the right mentors, which can lead to improved learning and instruction. Although the study does not focus on student outcomes, the ultimate goal of teacher improvement is to improve student learning and achievement, and quality mentoring programs take this into account. As the research suggests, successful new teacher support programs need qualified, effective mentors to provide benefits for participants. As a result, this study gathered data from both mentors and new teachers in the target district to determine the effectiveness of mentoring and induction activities on new teacher development.

Two assumptions guide this investigation. The first maintains that high quality instruction serves as the single most critical factor in improving student achievement, and effective induction programs can help to ensure high quality instruction. Students deserve the best teachers possible, those who are well-educated and effective educators in the classroom. Moir (2009) believes that "If we can provide all children with consistent access to high-quality teachers, we can close the achievement gap and ensure that all students receive an excellent education regardless of race, background, or socioeconomic

status" (p. 15). The second assumption is that school leaders need to retain high quality teachers. "The goal of these support programs is to improve the performance and retention of beginning teachers, that is, to both enhance and prevent the loss of teachers' human capital, with the ultimate aim of improving the growth and learning of students" (Ingersoll & Strong, 2011, p. 203). Therefore, retention cannot be overlooked as a critical factor in providing quality instruction to students.

Ingersoll and Strong (2011) identify a "conundrum" that exists with new teacher mentor programs: effective programs can retain teachers by making the profession attractive through strong support and development while other teachers view the job as short term, even with access to strong mentor programs. Chicago Public School novice teachers report that participating in an induction program alone does not necessarily influence their plans to continue teaching or guarantee they receive the critical supports required for new teachers such as an induction and mentoring program (Kapadia, Coca, & Easton, 2007). The result questions whether new teacher induction programs are a worthwhile or value-added investment. Nonetheless, high teacher turnover can have multiple negative effects on schools and students. According to Glazerman, Senesky, Seftor, and Johnson (2006), high teacher turnover can harm student achievement by reducing the overall experience of the teacher workforce. High turnover increases the costs borne by districts who must recruit, hire, and train new teachers, and it "can disrupt school culture and continuity of the overall school experience, which makes it more difficult for other teachers and principals to do their jobs well" (Glazerman et al., 2006, p. 1). Hence, retaining good teachers becomes a necessity for schools.

Without effective mentoring programs in place, schools risk losing good teachers and those who demonstrate strong potential. Research indicates that high percentages of teachers leave the profession after three years or less, but schools, which implement successful teacher mentor programs, can reverse that trend (Moir, 2009, p. 13). Other research, however, indicates that an adequate supply and pipeline of new teachers exist. Ingersoll and Perda (2010) discuss the perceived shortage of math and science teachers. While some schools do experience a shortage of math and science teachers, on the whole, vacancies in these subjects are filled (Ingersoll & Perda, 2010). "The data show that the math and science teacher supply… has been more than sufficient to cover both student enrollment and teacher retirement increases" (p. 589). Thus, a critical variable in induction programs is retaining good teachers.

Methods

In the context of the broader research case study, this research mirrors the goals and methods of the larger study. Data were collected using semi-structured, face-to-face interviews conducted with teachers and administrators. Specifically, interviews were conducted with one assistant principal, one mentor teacher, a novice secondary teacher, and a second year secondary teacher. The questions from the interview protocol that relate to the individual study include:

1. What supports does the district have in place for new teachers?
    a. Probe: Is it district led or building led?
    b. Probe: Discuss what effect, if any, that the new teacher supports have had on your teaching or that of a new teacher you know.

2. In what ways does the mentor/protégé relationship impact new teacher development?
    a. Probe: Give examples of ways that a mentor helps his/her protégé.
    b. Probe: Do you feel that this has an impact on new teacher retention?

Answers to these questions were analyzed and coded according to the research team's stated protocol, looking for common responses regarding the new teacher supports provided in the district. Attitudes and perceptions regarding new teacher supports, including structures, activities, and time, served as the key focus in reviewing and analyzing data.

Data were also collected through observations that focused on the opportunity for casual conversations as well as district level professional development meetings. In addition, to address new teacher support, the new teacher orientation meeting with the superintendent was observed. In addition to the interviews, I communicated with the district Director of Human Resources in order to gather data regarding recent turnover in the district to determine how many new teachers entered the district in the current school year.

Findings

Analysis of the interviews revealed multiple findings. Of the educators interviewed, two were defined as new teachers, one in his first year in the profession, and the other in her second year as a teacher in the district, but who had been in other schools for a few years. Other participant interviews analyzed included teachers, building principals, an assistant principal, and the assistant superintendent and superintendent. In

addition to the new teachers, two educators were interviewed who were specifically involved in the new teacher induction program as mentors and coordinators

Research questions focus on how new teachers are supported by formal and informal supports and the importance of relationships in those supports. The findings discuss the importance of relationships with new teachers in the district and the types of support structures and conditions that exist within the district. The first finding delves into the structure of the mentoring program.

Finding 1: Mentoring structures. As related to the Wenger's theoretical framework, good relationships in the organization build a community of practice that can support new teachers. In Cordova, the most evident practices in supporting new teachers identified in Wenger's theory integrate the following qualities and examples:

- Problem Solving: "I'm having trouble teaching this concept. Can we brainstorm some ideas on how to teach it differently?"
- Seeking Experience: "Has anyone come across this problem before?"
- Reusing Assets: "I have a lesson that I used last year for the Honors group. You can tweak it to use this year with the College Prep class.
- Discussing Developments: "What do you think of the new protocol?"
- Visits: "Can I come see your math lesson? I am teaching that section tomorrow?" (Adapted from Wenger, 2011)

The school district maintains a unique mentoring structure as opposed to the typical one-on-one mentoring models. Three mentor coordinators are employed in the district: two in the high school and one in an elementary school. An assistant principal serves as the administrator for the program and works in the middle school. Building

principals take on the role of ensuring that collaborative team meetings occur to support new teachers and also assign new teachers to an informal coach in the building. Principals take responsibility for coordinating monthly meetings for new teachers, scheduling one-on-one meetings with new teachers, observing new teacher classrooms, providing feedback, and serving as a colleague with whom a new teacher can discuss issues.

The superintendent expects principals to take an active role and interest in helping new teachers to adjust and grow into their roles. The superintendent states his belief that the school's faculty and staff will "jump in and help" new teachers and that, "The principal needs to take the lead in" ensuring that new teachers receive the support they need in a cooperative and collaborative way. The superintendent believes that all educators in a school need to take responsibility for assisting in the development of new teachers, not just an assigned mentor; hence the district does not assign a specific mentor to new teachers. Instead, the district has three teachers and an assistant principal who coordinate the induction program. This specifically involves biweekly meetings for new teachers and other informal meetings as needed. One principal describes her responsibility in helping new teachers: "It's an assumption that we should be supporting the teachers, we hired them, we should take that role. And I speak for myself, I attempt to as much as I can interact with them." The assistant superintendent also believes that the principal's role in supporting new teachers focuses on the importance of building relationships in the community:

> The expectations to work with them to provide time and feedback to assist them in navigating relationships with the community and parents as a whole. I think

providing them support with the expectations that you hire a new teacher you better be in there based on that evaluation cycle to see how they're doing.

Another building principal maintained that the district expects principals to do everything possible to help new teachers succeed and sees it as an "obligation to support them through that first year… [to] ensure that they're getting all of the support they need and that the people coming into their second year, that they're getting all of the support they need." The main supports for new teachers come from the mentor program coordinators who organize formal, bi-weekly meetings for new teachers and are available daily for informal check-ins or conversations. The mentor coordinators set the agendas for these meetings.

One of the mentor coordinators discussed the formal and informal supports that she provides for new teachers during meetings and in day-to-day practice. Describing a new teacher meeting after school, she discussed a collaborative atmosphere focused on problem-solving challenges faced by teachers with individual students, noting that the current process involves "each [new teacher] bringing a problem with a student to the table, and discuss[ing] that as a whole group." Another technique is a strategy shuffle, where the teacher writes down a particular problem or issue, and participants add advice, suggestions, and strategies. This way "All are doing this and then when people receive their own paper back, they have multiple solutions to their problems. Next, we debrief."

In further describing formal meetings for teachers, the mentor coordinator describes the broad, supportive approach taken during meetings, which formally take place biweekly and informally when an individual teacher wants to talk during the school year. She notes that the meeting provides a safe rather than an evaluative place for

discussion as it emphasizes, “that the boat that they're in is the same as the rest.” Such a “regular environment [relieves] angst because other people have been doing the same thing for year after year… we're there to help with those procedures and then help with support in the classroom” as they are all aware that the first year is difficult and overwhelming. By offering “a lot of little tips and heads up, [new teachers] don't feel like they're out there alone doing this and it's a little easier [dealing with] the things that you encounter just coming to a new school with all their procedures."

The mentor coordinator emphasizes the importance to new teachers of knowing that they face the same problems together, and that she does not want them to feel isolated. The mentor also recognizes the necessity of new teachers having a place to discuss concerns or challenges, no matter how seemingly inconsequential, and how veterans can provide tips to make the complex practice of teaching, and all the associated tasks and decisions, easier and less stressful.

New teachers, administrators, and the mentoring coordinators believe that the district provides an induction program that supports new teachers with mentoring and both formal and informal supports. One first year teacher described his experience in meeting with different colleagues:

> So we’ve had at least five mentor [coordinator] meetings....from an hour to two hours… I don’t know if this was by accident or on purpose but my mentor happens to be in my team. One of my other mentors happens also to be a science teacher...[and] that’s been really helpful to me...we have this focus also within our school on aligning our curriculums horizontally and vertically,,,What that does for a new teacher is it gives you a lot of structure that you would have had to

construct and explore on your own. You get a focus on what works and what doesn't... I couldn't have really asked for more as a first year teacher coming in.

The last line really sums up this teacher's positive feelings about new teacher support. He discusses having multiple mentors, including one on his team and one who teaches science, as being helpful and supportive. However, since the district does not assign mentors, the principal assigned his mentors. These various support structures display district cooperation and assistance that make new teacher support effective for this teacher.

A veteran administrator in the district reports that she has observed the positive effects of both formal and informal supports for new teachers and feels that new teachers are well supported:

> I think, first of all, the new teachers feel supported, and confident. And how I know that is I ask them, and then I look for signs of confusion or loneliness, or they come in crying, that kind of stuff. And I think they're surrounded by support and they know it, for the most part. The academic teams, I think are the strongest support. And then on … so I think that works pretty well.

Teachers in this administrator's building observed that she (the administrator) provides a great deal of encouragement and advice to new teachers on her own as well. Not only does she expect all teachers and academic teams to mentor, assist, and encourage new teachers, but also she personally helps novices. One beginning teacher described a time when this principal modeled an instructional behavior for him:

> When we sat down and met about it she kind of just sat me down in class and she was up where I stand and she did what I did and kind of showed me, I know it's

> not just that one table or one way of looking. It was a couple of things but she stood up in front of the class and I was sitting down and she just showed me what I looked like and then what I could look like if I changed it. It wasn't like, oh, you're doing this wrong, get out of here kind of thing. It was, I'll help you through this. We'll do it together kind of thing. That's encouraging.

The new teacher describes the interaction as positive, cooperative, and collaborative, an especially valuable experience coming from the principal. This example illustrates an informal support between the principal and teacher that displays strong instructional leadership behavior and collaboration.

Novice teachers report that they are paired with one mentor at the beginning of the year, but they also meet with other teachers who are part of their grade level team or with other teachers from their subject area from throughout the district. One second-year teacher notes that she meets with a team of four teachers from her building throughout the school year:

> At the beginning of the year we met every two or three weeks, very often. As the year went on we would meet during professional days as well. They would do check-ins with you probably weekly. But as far as formal meetings go, towards the end of the year we would do May and June but second year teachers would also be at those big meetings. So they continued it from the first year to the second year.

The evidence suggests that new teachers have the opportunity to meet often with other teachers, and when new teachers need the most support, at the beginning of the school year, the group meetings occur more often. Combined with regular, weekly meetings

between the mentor and the protégé teacher, additional informal conversations with either the mentor teacher or another teacher provide additional supports. These types of informal meetings, team meetings, and formal mentoring meetings help new teachers navigate the rigors of teaching.

A first year teacher reported on an informal meeting she had with the department coordinator before school began in the fall, and how that meeting and time to discuss the curriculum and his new classroom helped ease his tension before the first day of school:

> But the week after I was hired our science coordinator reached out to me and came in. We spent a couple of hours here talking and getting to know the school and stuff. That was really helpful to me. It knocked down a lot of walls that would have been intimidating to me. I know, and this might sound funny, the secretaries in the office couldn't have been more helpful to me and continue to be.

As evidenced by the first year teacher's response, a meeting in the summer with a veteran, lead teacher allowed him to feel more relaxed and not intimidated by "walls" present in the school. This experience describes an informal structure and relationship to support a new teacher that commenced before the school year officially started.

District administrators discussed the importance of the mentoring program for new teachers, and how they also serve as mentors for new teachers. Building on the enthusiasm that new teachers expressed for their four person teams, one principal described how important the "related arts" group is to new teachers. The related arts group is comprised of a group of teachers who teach similar subjects. The building principal describes their importance to a new teacher:

> And the Related Arts is a phenomenal group of people who help support the people in there. They've done a great job. I had one teacher, two teachers who are pretty new, and one of them is brand new, right out of the gate, and they have just embraced her right to the point where one time she goofed up a schedule… it's just very understanding of what it's like to be new.

Meeting with this team on a regular basis to discuss student achievement, problems with a particular student, and curriculum, among other topics, provides a collaborative group with which a new teacher can interact. It also offers a formal structure for a new teacher to connect with group of teachers, which prevents a feeling of isolation in one's own classroom. Collaboration among teachers and administrators in the district is a lived belief and as the superintendent describes, an important practice in which all teachers must participate.

Finding 2: Belief in collaboration. The district maintains a strong belief in the practice of collaboration. As related to the Communities of Practice theoretical framework, in this district collaboration involves everyone supporting new teachers, not just an assigned mentor or mentor/coach. The district, therefore, provides structures to support new teachers through strong induction activities, including external professional development, collaboration time with colleagues, and the modeling of reflective practice. Since the district under study is located in Massachusetts, a legal mandate exists to provide a mentoring program for new teachers entering school districts. However, program structures and conditions can very widely from one district to another, as the state does not provide strict or detailed guidelines as to how a mentoring and induction

program should be structured or run. Additionally, the state does not fund these programs and therefore must be subsidized by the district.

District leaders discussed collaboration as an important value in the district and one directly related to their vision and mission. Collaboration is an important practice for mentors and protégés as it builds collegiality and helps to ensure creative and varied teaching sensitive to students' needs (St. George & Robinson, 2011; Wood & Stanulis, 2009). One district level administrator discussed the importance of collaboration between a new teacher and colleagues:

> I think there's good levels of collaboration and high levels of collegiality. I think that the district sets a framework, but I do think teachers go above and beyond even with their peers during their own time. I think it's important that schools provide formal time in there because you can ask teachers everywhere, do you collaborate? Oh we collaborate all the time, we do it lunch, on the run.

The administrator goes on to emphasize the importance of not only the mentor/protégé relationship, but also the large group induction activities, which can include all of the new teachers in one building or in the district. He observed that mentors are not only "really good" at providing the traditional types of support which include housekeeping goals and other structures, but also the more engaging and meaningful kinds of tasks: "I think back to one of sessions I attended last year when they were doing a jigsaw kind of group share on kinds of classroom management practices," which in his mind brought mentoring to "more academic and reflective levels."

One first year teacher, new to the profession, discussed the importance of his relationship with his principal, who functioned in a mentor-type position:

Researcher: What kind of role does the principal play in supporting you as a new teacher?

New Teacher: Like I've said before, it's a nurturing one. I don't feel threatened by her. I'm not really intimidated. Maybe I should be; I don't know. She's my boss. But everything is constructive. There are criticisms in classes and they don't get you down as much as just inspire you to change them. The way she phrases everything, it's not ever that you're doing stuff wrong, but we need to shape how you're doing it.

The new teacher states how he does not feel intimidated by the principal, and describes her as "nurturing," a telling remark that expresses the close sense of a true relationship and the support he feels he receives. The respondent further describes how the principal has focused on seemingly mundane practices in the classroom, stating that she noticed him looking in one direction during most of the class, and suggesting that he address the whole class and make sure to look around the classroom. The respondent explained how the principal modeled this behavior in the classroom, one-on-one with him. This type of feedback mirrors a mentoring behavior, although one exhibited by the principal instead of a teacher, which illustrates the new teacher success and the sincere interest the building administrator maintains in this teacher's success.

Contrary to the evidence gathered from the middle school, the elementary and high school teachers expressed different sentiments. One principal, when asked about her role in new teacher support in the district, said that, "…we do what we do within our own buildings," which suggests lack of a clear vision or focus for principal support of new teachers. Another principal explains how she relies heavily on the mentor coordinators

and strong department heads for new teacher support. She notes that supporting new teachers is an expectation for principals:

> I don't recall ever having it [new teacher support by principals] actually defined for us, as in you need to be doing this. I think that there's an expectation that it's our obligation to support them through that first year.

While this principal feels the support of new teachers is an obligation, she describes how it is something mainly left to mentors or department heads. Principals' views on new teacher support do vary across the district. The superintendent does not articulate a clear statement about principals supporting novice teachers, but does explain that his expectation is that the principal will take the lead role in making sure there is a collaborative group set up and informal mentor to support new teachers in a particular building.

Also mentioned by a novice teacher is that support does not end after the first year. While the formal induction program may end, ongoing support still occurs, as does regular collaboration through grade level or department meetings. One novice teacher reports how she still checks in with the one teacher who acted as a mentor for her observing that "mentor teachers are always there because they were the first people you met and talked with and understood what you were going through. They are always people you can go back and rely on." She continued how she is still "running over there (to speak with the mentor teacher). They still check in with me to this day.

Given that new teachers discuss how the principal plays an active role in their professional growth in addition to colleagues and teaching teams, I will delve into how

this vision of collaboration and support for new teachers trickles down from district level leadership.

Finding 3: Vision for new teacher support. As previously stated, collaboration plays a major role in the district's vision as the superintendent encourages, requires, and sustains ongoing collaboration among all educators. In relation to new teacher support, he believes that new teachers should be supported by a group of educators, not just a one-on-one mentor. Building a collaborative model for all schools in the district includes the mentoring and support of new teachers. In relation to this, collaboration serves as a key practice and vision, fosters a community of practice, essential to supporting and mentoring new teachers. The structures provided for new teachers and teachers in general support a community of practice by allowing teachers to collaborate, seek each other's expertise, and problem solve together, which are three of Wenger's identified key examples in communities of practice. The structures provided in the Cordova schools include bi-weekly new teacher meetings, grade level meetings multiple times per week in the middle school, and district-wide professional development.

During an observation of the new teacher orientation, the superintendent discussed collaboration. He related the importance of collaboration and emphasized how everyone, including new teachers, must maintain a collaborative mindset and work with colleagues. During the meeting, teachers participated in the "Briggs and Stratton" exercise, a pun on the classic Meyer's Briggs test, where people identify themselves based on the four points of a compass in relation to the largest small engine manufacturer in the country, Briggs and Stratton. Neither the superintendent nor the district had any particular connection to Briggs and Stratton. Through assembling a newly purchased

lawn mower that uses a Brigg and Stratton motor and then mowing the lawn, each point corresponds to different personality types which relate to how one approaches the task of setting up the lawn mower and cutting the grass. The superintendent used this exercise to allow people to describe how they approach tasks and problem solve as a way to emphasize the importance of working with others and honoring each other's strengths, styles, and approaches. Eventually, this led to a group problem-solving activity focused on balancing nails on top of each other. Following the activity, the group debriefed and the superintendent led a discussion about Judith Warren Little's (1990) four levels of collaboration and how that model of collaboration is the goal and vision of the district. For new teachers, it is significant that the superintendent and the assistant superintendent personally led one of their first orientation meetings and focused on the importance of collaboration as central to district culture. Also important is that the superintendent's vision is grounded in Little's research on collaboration and joint work.

During his one-on-one interview, the superintendent discussed the importance of collaboration for new teacher support and his view of mentoring. He does not believe in one-on-one mentoring, but instead supports a few mentors working with all new teachers and the importance of a group of educators who collaborate to support new teachers:

> This will not be a one-on-one mentoring system. So it was about shifting people's thinking. You as mentors don't stand alone. How does everybody, everybody in the system, if you're working together, contribute to the growth of each other and therefore to the growth of new teachers? What do we provide above and beyond what we provide to all teachers, for new teachers, is the mentoring coaches. We look at that as a collaborative model as well.

As affirmed by the superintendent, collaboration serves a key role in the support of new teachers, with the entire faculty involved in the process of supporting new teachers. According to the superintendent, new teacher support should exist more broadly as part of the district's collaborative culture where many educators advise new teachers in grade level teams such as in the middle school. Furthermore, these structures do not exist only between teaching colleagues, but continue up through the chain of leadership where building principals are expected to take an active role in helping new teachers to improve practice and grow, as evidenced by responses from both new teachers and mentors.

Discussion

Contribution to theoretical knowledge. In Cordova, the data suggest that the mentoring process does not end after the second year of teaching. Although the formal induction program may end, collaboration and informal mentoring continues. Furthermore, new teacher support exists outside of the formal structures through a collaborative atmosphere, including informal discussion in the workroom, at lunch, or after school. An effective mentoring program continues beyond year two because the district remains committed to the continual growth of new teachers and dedicates resources, time, and supervision to ensure this outcome. Similar to Wenger's Communities of Practice, a united group of practitioners, from administrators to veteran teachers, must support new teachers through both formal and informal supports with the common goal of improving practice and educating students effectively given the various challenges and concerns inherent in educating today's youth. These findings do not assume that the whole district stands as a community of practice given the limited data

collected, but that certain schools show evidence of maintaining a collaborative culture and a community of practice.

The evidence suggests that the district has an adequate mentoring program that supports new teachers, and that district support for new teachers is an ongoing collaborative process. Findings support the conceptual framework outlined by Wenger (2008). They also align with the larger study conducted on teacher growth where the importance of shared vision, strong leadership, reflective practice, and feedback contribute to the development and sustainability of a community of practice united in one broad goal: the education of youth. New teacher support incorporates not only an induction program and mentoring, but also various forms of feedback, encouragement of a reflective stance, and a strong leadership vision. Combined with these types of district-wide support, induction and mentoring aim to provide a full host of supports for new teachers. Furthermore, in improving practice, the superintendent points to the research of Little (1990) regarding collaboration as an important focus in professional growth and new teacher support revolves around a collaborative atmosphere.

Given research, however, there is a limitation of the mentoring program in the district. Employing only three mentor coordinators, allowing mentor relationships to develop organically, and believing in the importance of a collaborative atmosphere to develop new teachers seem to work given the low number of new teachers working in Cordova. However, if faced with an influx of new teachers due to the retirement of a large number "baby boomer" aged teachers, for example, the structure of the new teacher support program would be compromised. Some new teachers might be lost in the mix or may not receive enough support. Furthermore, the three mentor coordinators would

potentially be overwhelmed by requests for assistance by new teachers, thus stretching thin their time and ability to help.

In the data, new teachers point to the availability of an informal mentor, or teacher who they can regularly speak with about teaching practice. They also mention the importance of grade level team meeting time, and the outreach of the department chair as important factors to their feelings of support. At the high school level, the department chair/mentor coordinator talked about the importance of being able to meet informally with new teachers whenever possible, whether before school or after school. This approachability and involvement by a veteran teacher allows for the kind of encouragement and backing that new teachers need. Furthermore, in highlighting the instructional leadership demonstrated by the principal, one novice teacher appreciates the mentoring of the principal. The teacher describes this as having a significant impact on him, helping him reflect on his teaching and make improvements. This type of hands-on approach by the principal in mentoring a new teacher demonstrates a high level of collaboration and instructional leadership between administration and new teachers. Given the varied and demanding roles of a typical principal, it is likely that this effective, hands-on approach might suffer if a school were to acquire a large number of new teachers.

Contribution to practical knowledge. Other districts would benefit from the model used in Cordova. From day one, new teachers learn that collaborative practice is an important cultural norm in the district and that they are expected to collaborate, collectively problem solve, and work with other teachers. The new teacher support program in the district serves as the foundation for developing and sustaining

collaborative practices in the schools. New teachers are expected to collaborate with peers and administration, and part of this collaboration includes the conditions and structures needed to support new teachers.

Based on findings in Cordova, one-on-one mentoring is not the only effective means of support for new teachers. However, this differs from the research literature. Multiple researchers contend that one-on-one mentoring is the most effective means of supporting new teachers (Ingersoll & Strong, 2011; Ingersoll & Perda, 2010; Moir, 2009). According to the evidence, a district collaborative mindset also provides the types of informal and formal supports that help new teachers as well as seasoned teachers grow and thrive. However, it is important to note that each new teacher and mentor coordinator interviewed described an informal type of one-on-one mentoring. Hence, while the district does not assign a one-on-one mentor, mentoring relationships still exist with new teachers. By allowing for time for grade level teams to meet to discuss students, review student work, and discuss practice, as well as allowing for principals to play a mentoring role for new teachers, the Cordova district established a system that encourages and supports teacher growth.

Conclusion

The Cordova school district has made a commitment to supporting new teachers through a formal induction program and collaborative environment that leads to informal mentoring. New teachers report the importance of frequent grade level meetings to review student work, curriculum and lessons while also developing a mentor relationship in an organic fashion. Mentor coordinators discuss the importance of regular interaction with new teachers, and the weekly induction meetings held to discuss challenges new

teachers face in the classroom. Principals believe in the importance of supporting new teachers either directly or through structures allowing for regular collaboration and meeting time. Given the hiring and relative low number of new teachers in Cordova, this system works well. However, it does not use the research proven practice of formally assigning mentors to new teachers, and it lacks foresight if the district was faced with an influx of new teachers due to retirements or other departures. Cordova should address these shortcomings in order to adequately plan for the future and make sure that all new teachers receive the strong support they need to grow and thrive.

CHAPTER 6

DISCUSSION[6]

The research team's findings highlight the Cordova School District's system-wide vision, culture of psychological safety, focus on collaboration, prioritization of time and resources, and emphasis on protocols. In this section, the team connects the findings back to the literature and conceptual framework for the study, and identifies how these findings developed while also discussing how they differed across the participant schools. In identifying limitations, we lay out the limited scope of the study and why certain decisions were made regarding the size and choices made in the study. Finally, we present a set of recommendations to the district based on our findings.

A District Vision That is Articulated Through Clear Expectations and Modeling

Research is clear that it is important for district leaders to develop a vision of excellence about teaching, learning, and leading that is shared with all constituents in the learning organization, and that they model the importance of making collaborative decisions that are consistent with that vision (Carter, Glass, & Hord, 1993; Dufour & Marzano, 2011; Huffman & Hipp, 2003; Marzano & Waters, 2009; Ovando & Owen, 2000; Schlechty, 2009). Such a shared vision provides a touchstone from which all other district actions flow (Lambert, 2003). The research team found that the Superintendent of the Cordova Public Schools effectively communicates a clear vision for the district in his strategic plan. This plan calls for educators to work collaboratively to utilize data gathered from frequent formative assessments in order to examine their instructional practices through the lens of student work, and to adjust their teaching accordingly to

[6] This chapter was jointly written by the authors listed and reflects the team approach of this project: Telena S. Imel, Philip McManus II, Maryanne Ryan-Palmer and Christine M. Panarese

meet the needs of all learners. This work is guided by four critical questions (DuFour & Fullan, 2013):

- What is it we want our students to know?
- How will we know when they are learning?
- How will we respond when individual students do not learn?
- How will we enrich and extend the learning for students who are proficient?

The use of these consistent questions to guide continuous cycles of inquiry allows a common voice to be heard in conversations of educators at all levels, including examination of student work, use of common assessments, collaborative decision-making to determine proficiency among students, and adjustment to practice targeted at specific student needs. Wenger (2011) defines this iterative process of learning, as the "interplay of learning and experience," exemplified in the shared repertoire of resources, routines, and practices that enhance individual and organizational practice. Although evidenced in varying degrees at the elementary, middle and high school levels, the relationship between students' needs and instructional practice is the consistent focus of collaborative professional inquiry in Cordova. This leads to adjustments in practice and pedagogy that allow teachers to more effectively meet the needs of the students they serve, in direct alignment with the vision of the Superintendent.

The vision of Cordova is clearly articulated in a one-page, strategic plan, setting forth a theory of action that is shared with all members of the learning community. The superintendent consistently communicates and models this vision in his work with the leadership team, increasing their collective capacity to extend the work in schools and classrooms across the district. Through his consistent use of norms and protocols in

leadership team meetings, the superintendent models the strategies that live the mission in the district schools. By leading the iterative development of learning walks with his leadership team, the superintendent and his leadership team examines teacher practice in a collaborative cycle of inquiry, affording a deeper and more personal understanding of expectations for teachers in studying student work and revising practice. As a result, district administrators are better able to make meaningful connections between teacher practice and student learning, as they model the collaborative cycle of inquiry they are fostering among district teachers.

Culture of Psychological Safety

The research team found that Cordova School District leaders recognize the critical importance of their role in fostering and establishing a culture of safety throughout the entire district. Administrators from each of Cordova's school levels conveyed their responsibility to facilitate educator inquires into teaching and learning that lead to teachers' professional growth and greater student achievement through a facilitative process that fosters relational trust among all stakeholders. The evidence that supports the finding of a positive school and district culture and climate appears to be fostered by the establishment of a safe working environment for educators to learn and grow. This culture of safety has helped to foster the development of trusting, collaborative relationships among a significant number of school leaders and teachers. This culture of safety has preserved the preplanning work the district had engaged in around educator evaluation and is a key factor in the district's successful implementation of the new educator evaluation tool. McLaughlin and Talbert (2006) remind school and district leaders of the importance of their role in creating trustful cultures and observe that

the principal is "in a key strategic position to promote or inhibit the development of a teacher learning community in their school...school administrators set the stage and conditions for starting and sustaining the community development process" (p. 56).

Triangulated data from multiple sources, such as interviews, artifact analysis, field notes, and site observations, validates the widespread success of the Cordova Schools in creating and maintaining a culture of safety. It is important to note, however, that the research sample was small and might have been comprised of a high concentration of collaborative individuals whose personalities seek to please others. Data collected from three different schools, however, challenges this alternative speculation. Additionally, there was significant evidence that supported the administrators' consistent actions to monitor school or district culture for elements of safety and trust to ensure that the collaborative practices that foster educator growth and improved student achievement are not interrupted.

These important findings assist in accelerating change processes associated with the transformation of schools and districts and validates the existence of a critical element necessary for the establishment of a community of practice (Covey & Merrill, 2006). Wenger (1998b) states, "as a locus of engagement in action, interpersonal relations, shared knowledge, and negotiation of enterprises, communities hold the key to real transformation - the kind that has real effects on people's lives" (p. 85). Evans, Thorton & Usinger (2012) recognize the opportunity school leaders have to create a culture of ongoing examination of teaching and learning that facilitates the necessary changes in instruction and assert, "effective job-embedded professional development can increase

the capacity of individual teachers, which in turn, enable teachers to more effectively meet the needs of students" (p. 157).

Senge et al. (2012) remind school leaders to develop the structures that support the opportunity for frequent, positive collaborative practices among educators and note it is the first of the "five principles of a learning organization" (p. 70). These five domains of a learning organization first focus on creating the context for effective, safe organizational learning. In this way, leaders can be assured of the development of a solid foundation to support the second principle of a learning organization, "personal mastery," which assists in refueling an individual's motivation and desire to advance their own and others' learning (p. 76).

Research indicates that the district had implemented several initiatives to facilitate and promote honest and open dialogue among faculty and administrators, thus building a level of relational trust among employees. This finding infers that district leadership understands the research cited by Handford & Leithwood (2013) that asserts that trust among administrators, colleagues and other educational stakeholders is significantly related to student achievement (Bryk & Schneider, 2003). Bryk and Schneider (2003) support this notion of open and honest dialogue to build trust and foster effective collaborative practices by asserting,

> Relational trust is grounded in the social respect that comes from the kinds of social discourse that take place across the school community. Respectful exchanges are marked by genuinely listening to what each person has to say and by taking these views into account in subsequent actions. Even when people disagree, individuals can still feel valued if others respect their opinions.

To support this idea, there is also a large body of research that asserts the need for school and district administrators to create and maintain a culture of safety and collegial openness to help to assure educator engagement in collaborative, school-based professional development (Darling-Hammond et al., 2009; Elmore, 2004; Hargreaves & Fink, 2003).

Research conducted by Bryk and Schneider (2003) also highlighted the importance of removing the barriers that lead to organizational and relational distrust, finding that "without interpersonal respect, social exchanges may cease" (p. 40). Thus leaders must be aware of the risk of educator avoidance in engaging in any collaborative learning that is perceived as unrewarding or degrading to their professionalism (p. 40) that can result from a culture of low organizational or relational trust.

The benefit of trust is best explained by Covey & Merrill (2006) who notes, "trust is a function of both character (which includes integrity) and competence" (p. 25). Clearly, a majority of the interview participants perceived the Cordova leaders and their colleagues as trustful and competent. For organizations engaged in implementing a change process, it would beneficial to the reform effort to first establish or rebuild trust. By establishing relational trust and organizational safety prior to embarking on any change initiative, school leaders allow for the wide dispersing of any concerns or risks associated with the change initiative. Therefore, school environments with high levels of trust have a distinct advantage in the instructional change processes that lead to greater student achievement because they possess what is known as a "core resource for school reform" or trust that allows for a quicker pace through the school change or transformative process (Byrk & Schneider, 2003, p. 43).

Since collaboration is a main focus in Cordova, the district leaders' vision and focus on district improvement to establish and maintain healthy collaborative practices hinged on the establishment of a culture of safety. While there was evidence to support that there were high levels of relational trust among some educators, this was not a generalized finding. However, it can be assumed that this existence of relational trust, while concentrated throughout the district, was preceded by the establishment of a culture of psychological safety that fostered the open, honest discussion and inquiry into teaching and learning. Specifically, the way in which the district implemented and used the new teacher evaluation tool is to be commended.

Collaboration as the Focus for Improved Instruction

The research team anticipated that collaboration would be evident in the district. However, collaboration quickly emerged as a key focus and initiative in the district during observations of our first meeting. The superintendent discussed the importance of collaboration at the new teacher orientation and specifically focused on the four levels of collaboration (Little, 1990). As the focus for the school district and vision of the superintendent, collaboration is regarded as a "non-negotiable." The focus on collaboration is the means for improving educator practice and ultimately student achievement. Consequently, collaboration in the district exists at all levels and is something that district and building leadership works to promote and facilitate.

Illustrative of Wenger's (2011) theoretical framework, the district fosters a culture that values relationship development within the organization. Some of the qualities of Wenger's communities of practice evident in Cordova include: problem solving, requests for information, seeking experience, coordination and synergy, and discussing

developments (Wenger, 2011). As such, Little (1990) maintains that at its highest level, collaboration focuses on joint work to determine a basic set of priorities that can guide teaching. Connecting back to Wenger (2011), collaboration includes the qualities found in communities of practice, as mentioned earlier.

A number of researchers have found that collaboration is essential to organizational change and improvement (Blasé & Blasé, 2000; Chi Keung, 2009; Frederiksen & White; 1997; Gallimore et al., 2009; Jacobson & Bezzina; 2008; Saunders, Goldenberg, & Gallimore, 2009; York-Barr, Ghere, & Sommerness, 2007). In Cordova, organizational change is fast moving under the new superintendent, and as a result, collaboration is critical. Working in isolation has been a constant practice within American teaching culture; thus the shift to a more collaborative professional culture has been difficult for organizations to embrace, but not Cordova. While change begins with individuals, these individuals are more likely to change in meaningful and lasting ways when they work and learn collaboratively in communities of practice (Blasé & Blasé, 2000; Chi Keung, 2009; Darling- Hammond, 2010; Wenger, 1998a; 1998b). The researchers found that communities of practice exist at every level and support collaboration. Structures that allow for collaboration and reflective conversations are seen as "viable way(s) to develop teachers because they are school-based and arise from teachers' daily concerns in the classroom and school" (Ashraf & Rarieya, 2008, p. 278). In Cordova, the structures include time for grade level and departmental meetings, professional development opportunities, and scheduled time to review data or look at student work. "Collaboration includes continuing interactions about effective teaching methods, plus observation of one another's classrooms. These activities help teachers

reflect on their own practice and in identifying things that can be improved" (Stigler & Hiebert, 1999, p. 124).

As collaborative communities of practice form naturally, the researchers assumed that the district selected for our case study would have numerous and varied communities of practice. We found communities of practice that were as varied as each individual in the district. There were many formal communities of practice created at each level of the district, specifically grade level and departmental teams, district, and building-based leadership teams. While communities of practice existed, the level of functioning and collaboration within each varied. Additional informal communities of practice based on alliances and interests (e.g. teachers with the same lunch period, teachers newer to the building, or those who have had similar students and have created a support system) were also found to exist in the Cordova School District.

The importance of collaboration in Cordova is a top-down vision and initiative, but one that is shared at all levels. Teachers and administrators discussed the importance of collaborative work in their daily practice, and identified the structures in place to allow them to collaborate. New teachers affirmed working in grade level teams to discuss student work and common assessments. Other teachers examined student achievement data to identify areas of growth to thus inform curriculum and instruction. Consequently, while teachers are expected to collaborate, so much so that new teacher support is regarded as a type of collaborative support and mentoring, principals are the ones responsible to ensure that collaboration is taking place at a level that improves instruction and student learning.

Among the three participant schools, the researchers found that collaboration is occurring most frequently and at its highest level in the middle school. Over the past six years, the middle school principal has maintained a focus on collaboration, and has provided teachers the structures needed to facilitate collaboration. Not far behind, the high school instituted structures to enable collaboration. Department meetings focus on joint work, which can involve reviewing student data, developing common assessments, or reviewing student work. The principal fosters a collaborative atmosphere, but also trusts department heads and teachers to carry out the work. Given its size, building capacity and buy-in have taken time in the high school. At more of a developmental level, the target elementary school is working towards more frequent and high-level collaboration. While the principal is committed to it, she is only in her second year, and the structures at the elementary level are not as conducive to collaboration. However, they are working to find time to collaborate, and district leadership is open to modifying the schedule to allow for more collaborative time at the elementary level.

Collaboration is a major focus for the district, and one that the research team spent considerable time investigating and discussing. With Judith Warren Little's research grounding his vision for the district, the superintendent has established a collaborative atmosphere at all levels and works consistently to support and enhance it.

Prioritizing Time and Resources for Collaboration and Professional Growth

Data consistently reflected that district and school leaders made a concerted effort to prioritize time and resources to enhance the district's collaborative structures in order to drive individual and institutional growth. The district prioritized time and resources in three specific ways. First, they maximized use of existing structures; a specific example

was how the middle school scheduled weekly collaboration for teachers. This time shifted from working in cross subject teams to a more strategic use of the time collaborating in content area teams in response to a district expectation that time be utilized to modify instructional practice in order to improve student outcomes. Second, they enhanced structures within the district by increasing the number of district-wide early release days. Time was focused on developing and refining standards-based units and common assessments. Finally, they created new structures within the system, as teachers, building principals, and the superintendent compromised to create a new structure for regular collaboration in departments at the high school. While this new structure provided less time for collaboration than the previous structure, participants felt that the compromise created time that could be more meaningfully used to collaborate and examine their practice.

In the context of Wenger's framework, findings suggest that Cordova prioritized time and resources to enhance the social learning of individuals in the organization, a key element for improved organizational functioning. School districts are complex organizations that rely heavily on relationships to improve practice and effectively meet the social and academic needs of students. Through this type of prioritization, Cordova supported educator growth.

Research acknowledges that for schools to better serve their students, established structures and allocated times are essential for individual and collaborative reflection to occur (Dana & Yendol-Hoppey, 2008; Danielson, 2009; Drago-Severson, 2004; DuFour & Marzano, 2011; DuFour et al., 2010; Frederiksen & White, 1997; Glazer, Abbott, & Harris, 2004, Larrivee, 2008b). Stigler and Hiebert (1999) also recommend that teacher

improvement efforts in the United States must focus on job-embedded, collaborative work where teams look closely at lessons and student work to enhance educator practice. They view professional development to be a critical component of the vocation and recommend for time to be scheduled into the teacher workday. Cordova's prioritization of time and resources to enhance collaboration shows the district has embraced this belief. Furthermore, Cordova prioritized and restructured the schedule to provide collaborative time, with targeted professional development, which aligns with the work of Elmore (2004) and Proefriedt & Raywid (1994). Additionally, this move exemplifies that "the Star teachers of the 21st century will be teachers who work every day to improve teaching – not only their own, but that of the whole profession" (Stigler& Hiebert, 1999, p. 179). These enhancements reflect district and school leaders' commitment to provide professional development opportunities, which foster a supportive environment and provide time for individuals and groups to engage in the examination of instructional practices and school problems (Osterman & Kottkamp, 2004).

Cordova has made teacher growth the core of district and school improvement efforts (Stigler & Hiebert, 1999). This is evident in efforts, which prioritized and guarded time and resources of the district and the time, energy, and effort of educators. Participants viewed these decisions as advancing the district expectation that all educators engage in continuous learning in order to provide students increased opportunities for growth and achievement.

Use of Protocols and Facilitation to Increase Effectiveness of Collaboration

Participants viewed protocols as useful tools for facilitating collaborative conversations and consensus building during meeting times. The most prevalent protocol focused on a structure of inquiry designed to examine student work. This finding is representative of the consistent progress the district has made towards one of the superintendent's reform initiatives. Wenger (1998a; 1998b) found that effective communities of practice are recognized by a shared repertoire of resources, routines, and practices. Cordova's use of protocols allowed participants to engage in more effective collaboration. Therefore, specific grade levels and departments, which functioned as communities of practice, engaged in cycles of inquiry due to protocols and facilitation. These two components worked together to focus conversations, allow all voices to be heard, and develop institutional knowledge and skills through the examination of student work. The uses of these tools are examples of what Wenger (2011) refers to as the iterative process of learning or the "interplay of learning and experience."

The importance of the use of protocols in the Cordova Public School District is best explained as the mechanism of choice for providing embedded supports for staff to inquire into teaching and learning, facilitate collaborative group work around topics, ensure effective, reflective discussion among educators, create avenues for the internal/external communication of teacher and administrator voice, and ensure efficient use of educators' time. "Through systematic reflection on and analysis of practice, teachers take charge of their own professional development, and they have the potential to substantially contribute to institutional problems and issues" (Cole & Knowles, 2000, p. 2). Within this collaborative culture, school leaders are able to build and strengthen the capacity of teachers – both individually and collectively (Schmoker, 2006). Spillane

(2005) states, “Leadership practice takes form in the interactions between leaders and followers, rather than as a function of one or more leaders’ actions” (p. 147). Spillane sees leadership as evident in the interaction of many leaders, so that ‘‘leaders’ practice is stretched over the social and situational contexts of the school…not simply [as] a function of what a school principal, or indeed any other individual leader, knows and does” (Spillane, Halverson, & Diamond, 2001, p. 6, original emphasis).

Little (2006) advocates for the use of protocols for collaborative discussions around data, student work, or curriculum alignment. Spillane (2005) explains that utilizing the leadership practices (not necessarily utilized by administrators) of “structures, routines and tools” (p. 147) within the context of a specific situation allows people to take action in improving individual and collective growth. DuFour & Eaker (2010) make the case that using protocols helps collaborative teams become more efficient and more effective in analyzing assessment results (p. 185–190). In order for educators working in schools to better serve their students, established structures, such as protocols and allocated times, are needed for individual and collaborative reflection to occur (Dana & Yendol-Hoppey, 2008; Danielson, 2009; Drago-Severson, 2004; Dufour & Marzano, 2011; DuFour et al., 2010; Frederiksen & White, 1997; Glazer, Abbott, & Harris, 2004, Larrivee, 2008b).

While use of protocols and facilitation was valued across all levels, the effectiveness of use varied by level, with the elementary school being the least evolved of the three schools. Data found the middle school to be the most evolved in their use of protocols and the high school to be making steady progress. For the elementary to make similar gains, the district needs to provide opportunities for teacher leaders to become

skilled facilitators allowing administrators to stretch the leadership throughout the teams. Since collaboration is a main focus in Cordova, the use of protocols to facilitate discussion and aid in the decision-making process is to be commended, because they provide essential structures for grade level teams, departments, and groups to work together effectively.

Limitations

The purpose and design of this study was crafted to respond to the research question about "How One Massachusetts School District Facilitates and Sustains Teacher Growth." At the study's inception and throughout the first months, it was originally thought that the structure of this investigation would allow for a clear delineation of the researchers' secondary focus areas. However, after the initial review of data from observations, interviews, and district artifacts, researchers discovered that many of the study's major findings overlapped not only with each other, but also with the study's secondary topic areas. While not a significant limitation of this study, data analyses yielded a more limited, but albeit meaningful, set of findings, especially for the secondary focus areas. It is important, however, to identify other more impactful limitations of this study:

- Our sample group did not include representation from every elementary school in the district, only one out of the five schools participated in the TQ study.
- The majority of the sample group of teachers that participated in our study represented secondary level schools (middle and high school).
- The district leadership team participants that were interviewed represented a sample of convenience.

- There was limited transcript verification from the study's participants; less than half of the participants replied to our request for verification of accuracy.
- It is acknowledged that although the researchers employed the use of audit trails, code checking, and participant validation, qualitative research by nature occurs in a natural setting where changing day-to-day happenings make the study difficult to replicate.
- Because the district lacks a formalized mentoring program, the data collected on this topic represent a newly developed and uniquely innovative approach to supporting new teachers that are hired into the district.

Recommendations for Cordova

The Cordova School District has many conditions and structures in place which foster teacher growth, but there is always room for improvement. This research offers the following recommendations that address Leadership Capacity, Reflection, Feedback, and New Teacher Support.

Leadership capacity. While the researchers found that the Cordova district prioritizes time and resources for collaboration and professional growth, educators in Cordova consistently identified a lack of time and resources at the elementary level as an obstacle to instantiating a community of professional learners in an equitable way across the district. DuFour and Marzano (2013) remind us that in order for the PLC process to impact education beyond individual schools, the process must be implemented across the entire system. As a system-level PLC, the Cordova District should explore opportunities to increase frequency, facilitation, and structure of collaborative time at the elementary level so that it aligns with opportunities available to middle and high school teachers.

This can be accomplished by establishing an inclusive think tank that represents all constituencies in the learning community, with the goal of collaboratively investigating opportunities to develop structural strategies that address the limited amount of collaborative opportunity afforded elementary school teams (DuFour & Eaker, 1998; Dufour et al., 2010).

- Look at the elementary level as a whole, allowing separate elementary schools to work together to develop more effective scheduling of specialists and sharing of scheduling strategies.
- Consider the mutual efforts of all staff members - classroom teachers, specialists, interventionists, and support staff - in creating a schedule that supports a structure of collaborative inquiry.
- Consider creating the schedule from a template organized in small increments (5 minute increments as opposed to 30 minute increments) to allow for flexible blocks of time.
- Prioritize the inclusion of an intervention block for all grade levels, allowing a schedule that provides support staff within the intervention block that allows students who need more support to gain proficiency to get that support without missing important classroom content.
    - Determine the additional staff needed to implement such a schedule.
    - Calculate the cost of this staffing.
    - Look across the district for existing resources that can potentially contribute to the effort.

- Participants across the district identified the effectiveness of trained facilitators at each level as significant to developing professional learning communities. At the elementary level however, training of teachers as facilitators has not occurred, resulting in the need for principals to act as facilitators in this process. DuFour and Marzano (2011) assert that without effective leadership at the team level, the collaborative process is likely to stray away from the issues that are most critical to student learning. Therefore, the researchers recommend that Cordova trains facilitators at the elementary level who can skillfully guide teacher teams to develop collective capacity to use protocols to examine student work toward targeted planning of instructional practices that increase student learning. This team level leadership further allows the PLC process to create opportunities for shared leadership across the district, enabling people throughout the organization to take the lead in identifying and solving problems.

Reflective process. Many participants identified a desire to increase the number of peer observations, making it a regular part of the reflective process within the district. One building level administrator explained that peer observation is a "growth area" for the district and stated, "It's (peer observation) not an embedded norm in our school." Research identifies peer observation as an approach, which positively impacts teachers' abilities to reflect on instructional practice (Ashraf & Rarieya, 2008; Collet, 2012).

- Because participants expressed differing thoughts on whether peer observation was a tool to which they had access, it is recommended that district leaders review with school leaders how to utilize substitute teachers or other staff to enhance use of peer observations. Several teacher participants expressed a

concern about limited opportunities to collaborate vertically with subject area teachers; this was especially true for teachers from small departments. It is recommended that the district review the opportunities and structures that allow "non-core" subject area teachers to collaborate with their peers and develop structures that increase opportunities for vertical collaboration and curriculum alignment. This type of structure would empower teachers to work together in professional communities of inquiry and practice and increase opportunities to develop reflective judgment to monitor and assess current practices and foster collaborative decision-making, resulting in enhanced future practices (Barnett & O'Mahoney, 2006; Darling-Hammond & McLaughlin, 1995; Killeavy & Moloney, 2010; Friedman & Schoen, 2009; Stigler & Hiebert, 1999).

Educator feedback. Many of the district's teacher and administrator participants provided researchers with detailed descriptions of the delivery and use of effective feedback in the form of instructional observations, student achievement data, surveys, or student feedback. By using feedback as a catalyst for igniting individual and collaborative educator reflection that will lead to change in practices and beliefs, the district has created a culture of ongoing learning in some schools (Mory, 1992; Hattie & Timperley, 2007; Mayfield & Mayfield, 2012). This type of school climate of collective educator learning around the use of feedback supports the concepts outlined in Wenger's concept of Communities of Practice (1998). However, for the District to fully benefit from the effective use of feedback as a means for district-wide educator growth, it is critical that every school leader allocate the necessary time to not only become the

instructional leader in their organization, but also model the behavior of continuous learner as well.

- It is recommended that the superintendent place a mandatory, minimum allocated time of two hours each for district administrators to observe instruction and provide feedback to teachers. In this way, the school district can continue to develop their positive use of the feedback processes and expand upon the collaborative examination of instructional practices and the development of the collective instructional improvement goals that will lead to greater student achievement across the district. Data collected at some sites indicated supervisory use of coaching after the delivery of feedback to assist in educator understanding of the information and corrective actions that would ensure teacher and student growth. Coaching can "refine and boost" individual performance (Woolway & Lezzi, 2012, p. 16). Because the District appears to have established the right conditions for this practice in some of the schools, it is probable that the district-wide adoption of instructional supervisor coaching with the delivery of educator feedback will help to facilitate the continual examination and improvement in teaching and learning (Killion, Harrison, Bryan, & Clifton, 2012).
- To circumvent potential barriers to the effective use of feedback at the Cordova School District, the superintendent should consider developing a method that would ensure the consistent use of supervisory coaching along with the delivery of formal and informal educator feedback. The art of teaching is becoming more and more complex. Sellars (2012) reminds

educators that as continuous learners, " . . . teachers must now be prepared to engage with the entirety of the holy trinity for teachers: know your content and how to teach it, know your students and how they learn and know yourself, your values and your capacity for reflection and ethical decision making" (p. 462). To ensure that teachers are receptive to the feedback and have the available supports needed to improve their instructional practices, all supervisors of instruction should be trained in effective coaching methods and the positive use of collaborative dialogue prior to the pairing this support with the delivery of educator feedback.

- Data collection and analysis did not indicate that the District was using a valuable feedback source provided by the Massachusetts Department of Education, EDWIN Analytics, either at the teacher or school leader level (MADESE, 2014). This restrictive use of focused data allows for the delivery of feedback in the form of state assessment data and subsequent use of this information for developing common benchmarks, making corrections, analyzing student progress, and monitoring and examining instruction therefore remains in the control of central office administrators. In order for teachers to use feedback to be proactive in seeking feedback and becoming self sufficient in acquiring and using student data effectively, they must have access to the data source (Feeney, 2007). Therefore, it is suggested that the District consider widening the access and use of EDWIN Analytics by taking advantage of the State training opportunities and first train all building leaders in this use of this system. The District should also develop an individual

professional development plan that would allow for each administrator to become the EDWIN System "go to" person for their building as well as the embedded staff trainer for this feedback data resource.

New teacher support. The Cordova School District provides important supports for new teachers including informal and formal feedback, grade level or department meetings, and discussions between new teachers and more veteran teachers. They also have district-level mentor coordinators who hold bi-weekly meetings for new teachers and act as mentors for all new teachers. This research found areas for improvement and makes several recommendations to improve new teacher support.

- Given research that supports one-on-one mentor programs, Cordova should establish a formal, mentoring program. Assigning a mentor teacher to a new teacher provides an immediate "go to" person for questions, feedback, and support. This can be accomplished in the context of the collaborative atmosphere and joint work already in place because mentors and protégés will still participate in all regular meetings such as department and grade level teams. Retaining district-based mentor coordinators not only to mentor new teachers, but also to plan a district-wide induction program is somewhat effective, but assigning a one-on-one mentor to each new teacher would ensure that teachers have a formally recognized mentor in place.
- Formalized meeting times should be built into the schedule to provide more structure to allow for exchanges between new teachers and a mentor. As new teachers are not currently assigned to mentor teachers, mentor coordinators serve as mentors for multiple new teachers and other teachers take on the role

organically and informally as relationships develop at the beginning of the school year through collaboration and discussion. Since only the high school and one elementary school have mentor coordinators in-house, the principal is responsible for assigning a mentor teacher to new hires. Assigning only one mentor coordinator to the elementary schools places additional pressure on coordinators and may result in less than effective mentoring.

- In retaining the mentor coordinator model, coordinators should have a lighter teaching load so they can travel between schools to check in with one-on-one mentors and new teachers. Otherwise, the district should assign a mentor coordinator to each school where new teachers work. This assignment should remain fluid, as not every school will have a new teacher each year.

The district's new teacher support protocol does not formally involve principals, and currently principals can decide when and how much to be involved in supporting new teachers. While the collaborative vision and norm for the district assumes that principals provide support to new teachers, evidence demonstrates variation among principals.

- Although concerns are brought to the mentor/coordinator who then responds to the new teacher, a formal expectation should require principals to work with new teachers and function as instructional leaders. This could involve instructional modeling, check-in meetings or informal observations. This will help the principal better support new teachers and ensure their growth as practitioners.

Moving forward in Cordova. One area that the data collection did not illuminate is how the district monitors and evaluates implementation of established expectations at the building level. The researchers question if the district has in place a mechanism,

which allows for continuous cycles of review and evaluation for each initiative. This review process would provide for the immediate needs of those implementing the initiative based on feedback and validate the progress and effectiveness of district initiatives.

- If there are no such mechanisms currently in place it is recommended that structures be established to review district initiatives and the review process should include stakeholders from all levels of the district.

Fullan (2001) and others have identified leadership succession as a critical factor in initiative sustainability (Hargreaves & Fink, 2003; Jacobson & Bezzina, 2008). A comprehensive succession plan would include training and mentoring for individuals who would have the social and leadership capacity to carry on the vision and mission of the district as well as build and maintain the healthy culture that has already been established.

Finally, it is recommended that district leaders attend to issues of succession planning as participants perceived that schools in the district with stable school leadership provided greater opportunities for teachers to engage in the reflective process.

Summary

Our findings highlight the importance of a district vision that provides the support and structures for collaboration, which in turn leads to educator growth. Although creating a psychologically safe environment to foster and support collaboration through relationship building and joint work served as the major group finding, individual studies drilled down more deeply into the data to examine specific functions, structures, and supports for professional growth in the district. Individual sections examined the relationships, structures, and modeling that supports new teachers; the type of reflective

questions and processes employed by district leaders with teachers; the structures and supports provided by district leaders that support school-based collaborative teacher growth; and the feedback processes employed to encourage educator growth. As our findings highlight, the Cordova school district has created a safe collaborative environment with strong leadership and a reflective stance that uses various forms of feedback to support teachers, including those new to the procession. The goal of this study was to inform practice with knowledge and insight with the hope that school districts and leaders can make improvements to foster teacher professional growth through the implementation of a cohesive vision, structures, and leadership behaviors.

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Appendix A

Consent to Participate in Interview

Boston College Lynch School of Education
Informed Consent for Participation as a Subject in the Research Study

How One Massachusetts School District Facilitates and Sustains Teacher Growth

Researchers: Telena Imel, Philip McManus, Maryanne Palmer, and Christine Panarese,
PSAP Ed.D. Candidates, Class of 2014

Adult Participation in an Individual Interview:

Purpose of this research study
The purpose of this study is to examine how one district supports and facilitates teacher growth and the role of leadership in the process. This study will examine the perceptions of teachers and leaders as to which conditions and structures within a district or school are perceived by teachers to support their professional growth.

Why have I been selected to participate?
You have been selected as a possible participant in this study because you work in the [Cordova] School District and are either a teacher or administrator. The total number of participants in the study is expected to be 15-20. We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

Description of the Study Procedures
If you agree to be in this study, we would ask you to participate in a 1-hour in-person interview. This will involve answering questions about your background, how you go about improving your practice and the roles that school and district leaders support teacher growth within your school and district. All questions you answer are voluntary. You may elect not to answer any question. In addition, you will be given the opportunity, if you choose to do so, to review the interview transcript for accuracy; it is estimated that this will take approximately ½ hour.

Voluntary Participation/Compensation
Your participation in this study is completely voluntary. There is no penalty for not participating. There is no compensation to participate in the study. Members of the research team do not have any financial interest in the study.

Risks and Benefits of Being in the Study
There are no reasonable foreseeable risks to participation. This study may include risks that are unknown at this time.

The information yielded from this study may provide beneficial information on what practices within schools and districts are seen by teachers and leaders as helping teachers grow their practice. This study highlights the importance of teacher voice in research and

practice and may be useful to professional associations of school leaders, school districts and schools of education as they prepare and/or recruit administrators for school district leadership positions, and preparation programs. The findings will also benefit school districts on how they might take steps to further support teacher professional development.

I understand the possible risks and benefits of being in this study.
I know that being in this study is voluntary and I can stop at any time.
I choose to be in this study.

Confidentiality
The records of this study will be kept confidential; however, we acknowledge the limitation of our ability to protect the confidentiality of your participation in this study. In any report we may publish, we will make every effort not to include any information that will make it possible to identify a participant. Your name and the name of the district will not be published.

Access to the records will be limited to the researchers; however, please note that the Institutional Review Board and internal Boston College auditors may review the research records to make sure the researchers have followed regulatory requirements.

Audio Permission
I have been told that the interview will be digitally recorded. I have been told that I can state that I do not want the interview tape- recorded and it will not be. I can turn the tape off at any time.

I agree to be audio taped. Yes_____ No_____

Contacts and questions
The researchers conducting this study are current doctoral students in the PSAP program at Boston College: Telena Imel, Philip McManus, Maryanne Palmer, and Christine Panarese. For questions or more information concerning this research you may contact Telena Imel.

If you have any questions about your rights as a research subject, you may contact: Director, Boston College Office for Research Protections at (617) 552-4778, or irb@bc.edu

Copy of Consent Form
You will be given a copy of this form to keep for your records and future reference.

Statement of Consent
I have read the contents of this consent form and have been encouraged to ask questions. I have received answers to my questions. I give my consent to participate in this study. I have received (or will receive) a copy of this form.

Signatures/Dates
Study Participant (Print Name)_____
Participant Signature_____Date_____

Appendix B
Teacher Interview Questions

Introduction

- Greet the teacher and thank him or her for allowing the interview.
- Inform him or her about confidentiality. They are not required to participate in the interview. They may choose not to answer a certain question or all questions. They may stop the interview at any time.
- Explain that the purpose of the interview is to discuss how the school uses data to inform instructional practice.
- Let's begin by discussing your background.

Background

1. Why did you become a teacher?
   Probe: What grade do you teach, and how long have you been teaching it? (If the teacher teaches a specific subject, ask them to state their subject.)
2. How would you describe your approach to improving your practice?
   Probe: Give an example of a time when you saw the impact from this development on student outcomes?

Reflective Practice

3. Reflective Practice encompasses the examination of the academic, social and ethical consequences of actions or possible action on professional practice or student learning.

   Considering this definition of reflective practice, please discuss what situations or conditions are most conducive to your engagement in reflective practice?
   Probe: Are there school or district experiences that have helped you become a more reflective practitioner?
   Probe: How have your principal or other district leaders supported your development as a reflective practitioner?

4. What kinds of questions do you ask yourself about your own teaching?
   Probe for academic/instructional, social and ethical

Leadership and Professional Learning

5. What is the vision of this school district? How do people come to share this vision?
   Probe: How does that translate into goals?
6. How does school leadership support teachers as they try to improve their teaching?
   Probe: Do you feel their efforts are aligned with the needs of staff?
   Probe: How successful do you think the administration has been at establishing a culture of valuing teacher growth and instructional improvement? Can you explain your assessment?
7. How would you characterize the quality of professional learning experiences your school provides? Why?
   Probe: What are some examples of professional development offerings your school provides?

8. How are faculty and staff involved in the decision making process within the school/district?
   Probe: What role do faculty and staff members play in this process?

New Teacher Support

9. What are the supports the district has in place for new teachers?
   Probe: Is it district led or building led?

   Probe: Discuss what effect, if any, that the new teacher supports have had on your teaching or that of a new teacher you know.

   Probe: What role does the principal play in supporting new teachers?

10. In what ways does the mentor/protégé relationship impact new teacher development?
    Probe: Give examples of ways that a mentor helps his/her protégé.
    Probe: Do you feel that this has an impact on new teacher retention?
    Probe: Do you see similar relationships elsewhere in the district?

Feedback

11. What are the structures, protocols and processes your district employs to deliver feedback to the educators?
    Probe: Which types of feedback do you find most useful to guide your professional growth as an educator? Please explain your choice (s) to me.
    Probe: Who are the people who provide you with the feedback that focuses on improving student achievement? Tell me about what this information looks like and how you use and/or share this information.

12. Tell me about a time when you implemented an instructional change as a result of receiving feedback.
    Probe: Who helps you work through this feedback process? How did you feel about this?
    Probe: Have you ever provided feedback to a colleague? Tell me more about this.
13. Has your district provided professional development to help you understand and use feedback? Tell me more about this (who, where, how long)?
    Probe: Are there teams or committees that provide feedback that helps you grow? Probe: Does data play a role in any of the feedback processes you participate in?

Collaboration

14. What role does collaboration play in teachers' professional learning?
    Probe: school support?
    Probe: district support?
    Probe: Who are the groups you meet with regularly? If so, why?
    Probe: Discuss what effect, if any, that collaboration has had on your teaching.

Probe: Are there specific structures in place that have allowed you to use scheduled collaborative time effectively? Can you give an example?
Probe: Who decides the agenda topic for collaborative meeting time?

Closing

15. Is there anything else that you think I should know that is important to understanding how your school supports and facilitates teacher growth?

Thank you for your time.

Appendix C

Administrator Interview Questions

Introduction

- Greet and introduce yourself and your role and explain to the school/district administrator the purpose of the study - to gather data on *how teachers perceive professional growth and development to be supported by their school and district* and thank for participating in this study.
- Go over the disclosure statement and highlight the Informed consent and confidentiality. Remind the individual that they are not required to participate in the interview. They may choose not to answer a certain question or all questions. They may stop the interview at any time.
- State that the interview will begin with an inquiry to their background.

Background

1. Why did you become an administrator?
2. How would you describe your approach to improving your practice? Improving your teachers' practice?
3. Describe your school system and staff.
   Probe: What are its strengths and weaknesses?
   Probe: What are the most pressing student learning needs, and how do you address them?

Reflective Practice

4. Reflective Practice encompasses the examination of the academic, social and ethical consequences of actions or possible action on professional practice or student learning.

   Considering this definition of reflective practice, please discuss what situations or conditions are most conducive to your engagement in reflective practice?

   Probe: Are there school or district experiences that have helped you become a more reflective practitioner?
   Probe: Are there ways in which district and school leaders purposefully support the development of reflective practice across the district?

5. What kinds of questions do you ask yourself about your own practice?
   Probe for academic, social & ethical

Leadership and Professional Learning

6. What is the vision of this school district? How do people come to share this vision?
   Probe: How does that translate into goals?
7. How does school leadership support teachers' continual improvement of practice?
8. Probe: Do you feel that district-wide efforts are aligned with the needs of staff?
   Probe: Are there building-based supports that foster teacher improvement?

Probe: Are these unique to one/your school?
Probe: Does the culture of the system value teacher growth and instructional improvement? Can you explain your assessment?

9. What are some examples of professional development offerings your district provides?
    Probe: Are there professional development opportunities for administrators in the district?
    Probe: Do you feel the professional development that administrators participate in throughout the school/district enhance their leadership skills? Can you provide some examples?

New Teacher Support

10. What are the supports the district has in place for new teachers?
    Probe: Is it district led or building led?
    Probe: Discuss what effect, if any, the new teacher supports have had on your teachers.
    Probe: What is the district's expectation for principals in supporting new teachers?
11. In what ways does the mentor/protégé relationship impact new teacher development?
    Probe: How?
    Probe: Do you feel that this has an impact on new teacher retention?
    Probe: Do you see similar relationships elsewhere in the district?

Feedback

12. What are the structures, protocols, and processes your district employs to deliver feedback to educators?
    Probe: Which types of feedback do you find most useful to guide your professional growth as an educator? Please explain your choice (s) to me.
    Probe: Who are the people who provide you with the feedback that focuses on improving student achievement? Tell me about what this information looks like and how you use and/or share this information.

13. Tell me about a time when you implemented an instructional change as a result of receiving feedback. This action voluntary?
    Probe: Who helped you work through this feedback process? How did you feel about this?
    Probe: Have you ever provided feedback to a colleague? Tell me more about this.

14. Has your district provided professional development to help you understand and use feedback? Tell me more about this (who, where, how long)?
    Probe: Are there teams or committees that provide feedback that helps you grow?

Probe: Does data play a role in any of the feedback processes you participate in?

Collaboration

15. What role does collaboration play in teachers' professional learning?
    Probe: How do the schools in the district schedule for teacher collaboration?
    Probe: Are teachers prepared to use collaborative meeting time productively?
    Probe: Who decides the agenda topic for collaborative meeting time?
    Probe: Is information from this meeting shared?
    Probe: How has the district supported the use of meeting time to enhance the school and teacher effectiveness?
        Supports?
        Structures?
    Probe: Discuss what effect, if any, that collaboration has had on your teachers' work?

Closing

16. Is there anything thing else that that you think I should know in order to fully understand how your school/district supports and facilitates teacher growth?

Appendix D
Observation Protocol

1. What space is being utilized for this meeting?
2. Who are the participants? Facilitator? Protocols?
3. Who does the talking? Any timekeeper? Who listens?
4. What are some of the conversations you hear? Themes?
5. What is the focus of the meeting? Is it sustained? Any decisions made? If so, what method is used to make the decision (s)?
6. What actions or statements are observed? What is the sequence of the actions or statements?
7. How are people working together? Individualistic?
8. What structures & routines do we see
9. Are there norms
10. Is there feedback given
11. Is it top down or collaborative?
12. Any feelings expressed by the meeting participants?
13. Do people sway on their choices or influence others? If so, how does this happen?
14. How does the meeting end? Any Take-Aways?
15. Are there conversations after the close of the meeting? Sidebar and/or parking lot conversations?

Appendix E
E-mail Recruitment Text

Dear Staff Member,

We are seeking out participants in your district for our research study. The study is designed to examine how one district is supporting teacher growth throughout their career. Our research team seeks to hear from both teachers and administrators about the conditions and structures that have or have not been established within the school and district that teachers perceive to be meaningful to their continued growth throughout their career.

We hope that you might consider participating in our study. This would involve an individual interview lasting no longer than one hour. Dr. [Murphy] has agreed to this study and is willing to provide you release time if you are willing to be interviewed by a member of the research team we are also happy to interview you at another time that is convenient to you. You will be asked a series of questions related to your experiences and perceptions of how the district supports you (or others) through collaboration, reflection, feedback and new teacher supports and leadership. It is important to note that and you may opt out of answering any of questions. Your participation is voluntary and your privacy will be protected. Your name will not be used in any report that is published and the discussion will be kept strictly confidential. If you'd like more information about the study, you may contact: Telena Imel, Philip McManus, Maryanne Palmer, and Christine Panarese.

We hope that you will consider participating in our study!

Sincerely,

Telena Imel, Philip McManus, Maryanne Palmer and Christine Panarese

Boston College IRS

Approved

July 2013

Appendix F
Cordova Leadership Retreat Agenda

Agenda **Monday, August 19, 2013** DISTRICT ADMINISTRATIVE RETREAT AUGUST 19, 20 and 21, 2013 THEME: SENSE OF URGENCY Essential Questions: How do we measure success? How do we motivate and energize people to improve?	
8:30 a.m. to 8:45 a.m.	Connections and introduction (Sullivan) • Use revised carousal format • Introduction and overview • Reflections (from July 2) • Including "Parking Lot"
8:45 a.m. to 9:15 a.m.	Norms review (Jim)
9:15 a.m. to 9:45 a.m.	Our agenda with context of "Fears and Hopes" (Sullivan)
9:45 a.m. to 11:15 a.m.	SDIP Completion (Murphy) • Overview of current overview draft • Review of PP2 model template (Sullivan) • Group work on template completion (Team) ○ Breakdown into 2-3 groups ○ Templates
11:15 a.m. – 12:00 p.m.	Lunch
12:00 p.m. to 2:45 p.m.	**SDIP Work Continued** • **Please read Chapter 5 "Developing A Guaranteed and Viable Curriculum"** (previously provided hard copy in July retreat binder) **If we complete templates, we will use this chapter for a text-based discussion connected to the SDIP**
2:45 p.m. to 3:00 p.m.	Wrap-up and reflections (Sullivan) • Reflection sheets

Agenda
Tuesday, August 20, 2013

DISTRICT ADMINISTRATIVE RETREAT
AUGUST 19, 20 and 21, 2013

THEME: SENSE OF URGENCY

Essential Questions:
How do we measure success?
How do we motivate and energize people to improve?

8:30 a.m. to 8:45 a.m.	Connections with Reflections Reflections from August 19
8:45 a.m. to 9:45 a.m.	Safety Protocols (Chief G, Lieutenant G, HS Principal)
9:45 a.m. to 10:45 a.m.	S & E Updates (Murphy with S & E Committee)
10:45 a.m. to 11:15 a.m.	Opening Days Agendas (Sullivan)
11:15 a.m. to 12:00 p.m.	Lunch
12:00 p.m. to 1:00 p.m.	S & E for Administrators Rubric for Administrators (handout) Leadership Meeting Calendar (in July binder)
1:00 p.m. to 2:30 p.m.	Program-based Budgeting (Jim)
2:30 p.m. to 3:00 p.m.	Other needs, wrap-up, reflections Reflection sheets

Agenda

Wednesday, August 21, 2013

DISTRICT ADMINISTRATIVE RETREAT
AUGUST 19, 20 and 21, 2013

THEME: SENSE OF URGENCY Essential Questions:
How do we measure success?
How do we motivate and energize people to improve?

8:30 a.m. to 8:45 a.m.	Connections with Reflections Reflections from August 20
8:45 a.m. to 9:15 a.m.	PARCC and MCAS Updates (Sullivan) PARCC handouts Level One information and data
9:15 a.m. to 11:00 a.m.	Technology (Corey) Website ITAC Automated calling system OASYS revisions (Mike)
11:00 a.m. to 11:45 a.m.	Communication Merrimack Fellowship (Jim) Identified other needs
11:45 a.m. to 12:00 p.m.	Closing and reflections (Murphy) Reflection sheets
12:00 p.m. to 1:00 p.m.	Lunch (catered)

Appendix G
Cordova Administrative Walkthrough Protocol

CORDOVA PUBLIC SCHOOLS
ADMINISTRATIVE WALKTHROUGH PROTOCOL

Focus of Inquiry

Indicator II-B Learning Environment: Creates and maintains a safe and collaborative learning environment that motivates students to take academic risks, challenge themselves, and claim ownership of their learning.

Proficient: Consistently creates learning experiences that guide students to identify their strengths, interest, and needs; ask for support when appropriate; take academic risks; and challenge themselves to learn.

learning experiences that guide students to ***identify their strengths, interest, and needs*** **"A"**	learning experiences that guide students to ***ask for support when appropriate*** **"B"**	learning experiences that guide students to ***challenge themselves*** **C"**	learning experiences that guide students to ***claim ownership of their learning*** **"D"**
I would expect to see…	**I would expect to see…**	**I would expect to see…**	**I would expect to see…**
I would expect to hear…	**I would expect to hear…**	**I would expect to hear…**	**I would expect to hear…**

Group Norms

- **Our purpose is to improve our ability to focus on description of observational elements and not to be distracted by personal interests or other matters in the classroom**
- We are here for our collective learning, not to evaluate one another, the teachers, or the students.
- We will uphold norms of confidentiality in relation to the visits we make to students and teachers.
- We will encourage one another to be as explicit as possible about the evidence behind our statements.

Classroom Visits

- Our goal is to have as minimal an impact as possible on the functioning of the classroom.
  - Refrain from conversation with other team members; avoid distractions to the class.
  - Review student work samples in folders, portfolios, or displays.
  - Ask students (if appropriate): *What are you learning? Why are you learning it? How do you know if your work is good? What do you do if you need help?*
  - Ensure that each class visit is for a consistent duration.

Gathering Evidence

- Record factual data on scripting sheets using quotes, tallies, or descriptions **SPECIFIC TO THE RUBRIC FOCUS**
- Focus on stating factual evidence *("I heard… I saw…")* and refrain from subjective statements *("I liked...")*.
- Focus on what is actually said or done, as a video camera might record.
- Be as fine-grained and objective as possible, for example:
  Teacher asked: "How would you demonstrate that these fractions are equivalent…?"

  Students worked in teams of four following the scientific process to…

- Label scripting sheets with visit numbers, not identifiers such as teacher names/classroom numbers.

Debriefing the Classroom Visits

1. Analyze Evidence **SPECIFIC TO THE RUBRIC FOCUS**
    - Share highlights (big ideas, trends, areas of strong practice) from the aggregated evidence.
    - Identify patterns, trends, and big ideas, noting areas of strength.

2. Generate Next Steps.
    - Brainstorm possible "Quick Wins of Practice" that will address key themes that emerged.
    - Collaborate on the content and wording of summary observations and feedback to be shared with faculty.
    - Reflect on how they might support practice based on key themes that emerged.

Reflect on the process, results, and relationships developed during the day, noting areas to keep or improve for future *Learning Walkthroughs*.

WALKTHROUGH SCRIPTING SHEET TEMPLATE

School		Date	
Participants		Time	
Grade/Subject		Observation #	
Number of Students	Type of Class: ☐ SpEd ☐ Inclusion ☐ Regular Ed		
Number of Teacher(s)			
Standard(s)	II - Teaching All Students		
Indicator(s)	II-B Learning Environment		

Evidence Notes
What do I see?
What do I hear?

Appendix H
Tuning Protocol

National School Reform Faculty

Harmony Education Center

www.nsrfharmony.org

Tuning Protocol:
Overview

Excerpted, with slight adaptations, from Looking Together at Student Work *by Tina Blythe, David Allen, and Barbara S. Powell (New York: Teachers College Press, 1999)*

The tuning protocol was originally developed as a means for the five high schools in the Coalition of Essential School's Exhibitions Project to receive feedback and fine-tune their developing student assessment systems, including exhibitions, portfolios and design projects. Recognizing the complexities involved in developing new forms of assessment, the project staff developed a facilitated process to support educators in sharing their students' work and, with colleagues, reflecting upon the lessons that are embedded there. This collaborative reflection helps educators to design and refine their assessment systems, as well as to support higher quality student performance. Since its trial run in 1992, the Tuning Protocol has been widely used and adapted for professional development purpose in and among schools across the country.

To take part in the Tuning Protocol, educators bring samples of either own work or their students' work on paper and, whenever possible, on video, as well as some of the materials they have created to support student performance, such as assignment descriptions and scoring rubrics. In a circle of about six to ten "critical friends" (usually other educators), a facilitator guides the group through the process and keeps time. The presenting educator, or team of educators, describes the context for the student work (the task or project) - uninterrupted by questions or comments from participants.

Often the presenter begins with a focusing question or area about which she would especially welcome feedback, for example, "Are you seeing evidence of persuasive writing in the students' work?" Participants have time to examine the student work and ask clarifying questions. Then, with the presenter listening but silent, participants offer warm and cool feedback - both supportive and challenging. Presenters often frame their feedback as a question, for example, "How might the project be different if students chose their research topics?"

After this feedback is offered, the presenter has the opportunity, again uninterrupted, to reflect on the feedback and address any comments or questions she chooses. Time is reserved for debriefing the experience. Both presenting and participating educators have found the tuning experience to be a powerful stimulus for encouraging reflection on their practice.

Protocols are most powerful and effective when used within an ongoing professional learning community such as a Critical Friends Group® and facilitated by a skilled coach. To learn more about professional learning communities and seminars for new or experienced coaches, please visit the National School Reform Faculty website at www.nsrfharmony.org.

National School Reform Faculty

Harmony Education Center

www.nsrfharmony.org

Tuning Protocol

Developed by Joseph McDonald and David Allen

1. Introduction (5 minutes)
- Facilitator briefly introduces protocol goals, guidelines, and schedule
- Participants briefly introduce themselves (if necessary)

2. Presentation (15 minutes)

The presenter has an opportunity to share the context for the student work:
- Information about the students and/or the class — what the students tend to be like, where they are in school, where they are in the year
- Assignment or prompt that generated the student work
- Student learning goals or standards that inform the work
- Samples of student work — photocopies of work, video clips, etc. — with student names removed
- Evaluation format — scoring rubric and/or assessment criteria, etc.
- Focusing question for feedback
- Participants are silent; no questions are entertained at this time.

3. Clarifying Questions (5 minutes)
- Participants have an opportunity to ask "clarifying" questions in order to get information that may have been omitted in the presentation that they feel would help them to understand the context for the student work. Clarifying questions are matters of "fact."
- The facilitator should be sure to limit the questions to those that are "clarifying," judging which questions more properly belong in the warm/cool feedback section.

4. Examination of Student Work Samples (15 minutes)
- Participants look closely at the work, taking notes on where it seems to be in tune with the stated goals, and where there might be a problem. Participants focus particularly on the presenter's focusing question.
- Presenter is silent; participants do this work silently.

5. Pause to reflect on warm and cool feedback (2-3 minutes)
- Participants take a couple of minutes to reflect on what they would like to contribute to the feedback session.
- Presenter is silent; participants do this work silently.

6. Warm and Cool Feedback (15 minutes)
- Participants share feedback with each other while the presenter is silent. The feedback generally begins with a few minutes of warm feedback, moves on to a few minutes of cool feedback (sometimes phrased in the form of reflective questions), and then moves back and forth between warm and cool feedback.

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- Warm feedback may include comments about how the work presented seems to meet the desired goals; cool feedback may include possible "disconnects," gaps, or problems. Often participants offer ideas or suggestions for strengthening the work presented.
- The facilitator may need to remind participants of the presenter's focusing question, which should be posted for all to see.
- Presenter is silent and takes notes.

7. Reflection (5 minutes)
- Presenter speaks to those comments/questions he or she chooses while participants are silent.
- This is not a time to defend oneself, but is instead a time for the presenter to reflect aloud on those ideas or questions that seemed particularly interesting.
- Facilitator may intervene to focus, clarify, etc.

8. Debrief (5 minutes)
- Facilitator-led discussion of this tuning experience.

Protocols are most powerful and effective when used within an ongoing professional learning community such as a Critical Friends Group® and facilitated by a skilled coach. To learn more about professional learning communities and seminars for new or experienced coaches, please visit the National School Reform Faculty website at www.nsrfharmony.org.

Appendix I
Walk-Through Reflective Question Samples

Red highlighted text indicates suggestions or comments from the group. Asterisk indicates questions identified by group for discussion

- This was very quick snapshot of the reading block. It seems that the students have comfortably settled into a routine around practice. What is your perspective on the importance of classroom routines in the learning process?
- *During this brief observation, there was evidence that routines were well established in the classroom during snack time. How routine is it for you to incorporate a variety of higher-order questions with your groups and what advice would you give to a new teacher about questioning techniques for any lesson? (assumes there was higher-order questions being discussed during snack; focusing on higher-order questioning is a key to learning)
- When doing a whole-group review of any in-class or homework task, how do you monitor if each child is on track with his or her understanding?
- *This was a very brief observation that spotlighted the high expectations you have for your students and the strong and supportive relationships that you've developed with the kids in your fifth grade class. Humor can be an important tool to building rapport with a group. How do you view the relationship between humor and student engagement? (Acknowledges 2 key factors and question seeks to cause deeper reflection on connections)
- *This was a very quick snapshot of the ELA block. It seems that after only a handful of weeks, the students have comfortably settled into a routine around classwork practice and expectations for behavior. What advice would you give a new teacher about the importance of a teacher's tone in establishing classroom routines? (acknowledges positive with advice question that supports teacher thinking of modeling)
- Realizing that I only saw a small portion of the lesson, the students seemed to be engaged and active with the task of re-reading the story and responding to comprehension questions within groups. For this and other cooperative group work, how do you go about making "teams" and are there roles assigned for members of these learning groups?
- The topic of friendship is obviously very connected to our work on RAISE values. Before I arrived, the students had worked with classmates to discuss brainstorm an initial list of rules and individuals came out with a great set of ideas. What did you do or what do you do generally to help students be as effective and productive as they can be in cooperative learning groups?
- *This was a very quick snapshot of lesson in mathematics. Based on the behavior of the students, they were engaged in the activities and were eager to show what

they've learned so far. What advice would you give a new teacher about a teacher's tone of voice and attitude in motivating students to put in their very best effort? (good blend of positive with question that makes teacher think as leader)

- How does reading a book aloud to this 2nd grade audience demonstrate what you want them to know and be able to do?
- This was a very brief observation of a morning meeting and mini-lesson in writing. The students were very comfortable together with you sharing their ideas and stories. What advice would you give to Abby K or any other new teacher about the part relationship-building plays in student engagement and learning?
- What kinds of things to you take into consideration while planning for any kind of group work in class?
- This was a quick snapshot of an ELA lesson in K. It is the second year that you've prepared stone soup alongside the other teachers on the grade level. Were there any changes made to how you all planned the classroom activities or family celebration or are there ideas you've had this time through that you would suggest changing for next year?
- *What have you found to be two effective and meaningful ways to review student work in class? How do you know? (this question could use some contextual framing with what was seen in the classroom)
- *Is there another way to help manage the noise of the children? (see comments below and above)
- *You seemed to work well with your Paraprofessional, is there any special planning that goes into making that work? (identify what specifically seemed to work well)
- At this point in their high school careers how much directing and teaching do they need around website research? You gave a great explanation on the project directions. Do they need follow up during the project?
- How does the binder check impact the student's grade?
- Are the students that Mrs. Mc works with groups in a certain area or are they random? What's the rationale for either?
- How much smaller would you like the class to accomplish what you want to the way you want to do it?
- Does it help you get more out of at risk students (D) if you let them listen to music at certain times?
- Does having the students go to the board to complete the problems help keep them engaged?
- *What activity or activities could be planned to keep the students engaged while you did check-ins? (How do we acknowledge good teaching but nudge people forward? see below)

- Do you ever go more in-depth on your agenda or do you just list the subject the students will cover for the day?

Suggested intros or other frames to use:

- Previously I noticed (something positive)…
- Prior to check-in (something positive)…
- I noticed these two engaged…
- It was orderly and quiet…
- What are 2 effective strategies you've used to keep all students engaged?
- TO PUSH A P/A teacher: This was an awesome lesson…what would you want to grow in?