Creating Community Among Leaders

Leveraging Shared Practices for School Improvement

By Sarah June Williams

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Committee in charge:

Professor Bernard Gifford: Chair

Professor Daniel Perlstein

Professor Alex Saragoza

Professor Judith Warren Little

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Abstract

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Principals work within a complex context where multiple stakeholders make many competing demands of them. Chief among these demands includes district initiatives, which serve to create leadership expectations but often do not contain clear methods or practices for implementation. Additionally, demands of the local community and interests of teachers and students create layers of complexity which can confound and isolate leaders. While principals may feel cut off from their peers dealing with these intricacies, the reality is, regardless of initiative or priority, principals have many common problems of practice. Establishing highly effective teacher collaborative groups, is an example of an implementation most principals come to face.

The Early Release Wednesday Toolkit was developed to support leadership practices for implementing highly effective collaborative teacher groups. To create the toolkit, a sample of principals engaged in a co-development process to capture effective practices already in place, and share them with the larger principal group. In so doing, the principal Community of Practice was strengthened. The findings of this study suggest that principals gain from relying on each other for problem solving where their leadership is concerned, and may serve to inform other leaders about effective ways to learn from one another. This design study is centered on action research and includes two primary research elements, evaluation of the design outcome and assessment of the design process.

Dedications and Acknowledgements

The completion of this work marks an important milestone in my life. Having begun this journey in the summer of 2009, and taking a hiatus between 2011 and 2013, this dissertation marks the end of an eight-year endeavor, rife with struggle. In 2008, my horoscope read that Jupiter, the Ruler of Capricorn, would bring a long period of change – and so it has. Much like the butterfly, metamorphosis requires an extended period of intense painful transformation. Yet, I am thankful for my experiences because I know they have made me a stronger, wiser person. I know now, that I am capable of terrifying feats of endurance that would cripple most anyone else. Finishing this dissertation is proof. Yet, all along the way I have had critical support from many people in my life, without whom I would never have made it.

Perseverance is the hallmark of any significant accomplishment. For my perseverance, I can thank my mother, Betty. In my lifetime, I have known my mother to work multiple jobs at a time, raise two young girls, go to school while she worked, complete her own doctorate degree, and become a pilot. I have never heard hear say, "quit." She is my counselor, my mentor, and the role model of all the expectations I have ever had for myself. For his part in maintaining our family's sanity, I must also acknowledge my step-father, Walter, who bolstered my mother through her trials, dedicated himself to the support she believed we should have, and showed my sister and me what it means to be true.

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Chapter 1: Design Challenge and the Professional Knowledge Base

Introduction

The district examined in this study is a place I have worked for twenty-five years. I have seen many changes and many priority shifts. The heart of the work at every level of the system, however, traces back to the academic achievement of the students. Creating opportunities for students to succeed is the ultimate outcome of all stakeholders in a school district. This study focuses on the elementary principal Community of Practice (CoP). This researcher currently serves as a director in the school district of study, and for seven years was also an elementary principal. While I know the problems of being an elementary principal well, the problem of providing opportunities to students is the very purpose of schooling, and therefore, the heart of leadership. This study aims to examine a common problem of practice for all elementary principals: the problem of creating collaborative teacher groups which work to improve instruction such that student outcomes might also be improved.

Leading a schoolwide effort to improve instruction is a central tenet of being a principal. The academic literature which supports this effort is often referred to as instructional leadership. Instructional leadership refers to a set of skills that leaders possess, including the ability to build trust among staff, to establish a clear mission and goals, and to help maintain focus on consistent ongoing improvement (Bryk & Schneider, 2003; Heck, 1992; Minckler, 2013). Instructional leadership identifies the role of the principal as a sort of lead teacher (Mitchell & Castle, 2005). Principals engaging in instructional leadership find themselves in the midst of the teaching and learning process rather than at the perimeters of it (Minckler, 2013; J. P. Spillane & Miele, 2007).

The literature goes on to explain that a strong principal is one who can identify the strengths in others, sharing the leadership load such that the improvement process can be facilitated from multiple leverage points (Gunter, Hall, & Bragg, 2013; J. P. Spillane & Miele, 2007). This work presents a strong argument that bringing professionals together to share their work and amplify their efforts would be an effective approach to the issue of ongoing improvement. An example of how bringing professionals together for common learning experiences can empower and transform organizations actually comes to us from the medical community (Wilcock, Janes, & Chambers, 2009). In the recent past, when medical organizations moved to a Health Maintenance Organization provider model, the patient began to receive care from multiple specialists within the organization. For efficiency's sake, doctors with differing areas of expertise worked within a single organization where the patient could obtain care, based upon needs. An unfortunate outcome of this model, however, was the realization that patient mortality rates were climbing because those same doctors had little exposure to each other and therefore had almost no knowledge of the treatment protocol for the same patient, from one professional to the next.

The way the system self-corrected was to begin to use professional development opportunities, where all medical professionals attended, as a means of convening doctors and others who work with patients, in a single environment where they could learn to speak to each other about patient treatment. This "interprofessional development" (p. 298, Aug. 2010),

served to create collaborative experiences for the professionals most closely connected to patient outcomes (Wilcock et al., 2009). Working with teacher collaborative groups is like the interprofessional development knowledge base because teachers often have varying backgrounds and levels of expertise. Content knowledge and professional experience can be very different from one teacher to the next, even at the same grade level or in the same subject area. By creating opportunities for teachers to learn from one another, principals create spaces for those variances to be exposed; where practices can be shared and teachers can develop the working relationships necessary to engage in the kinds of self-study which result in changed practices. Research and policy exists identifying the Professional Learning Community (PLC), groups of professionals who are dedicated to a common goal, shared practices, and who engage in problem solving using data, as a way for leaders to support the work of teachers (Mason, 2003a; Jay McTighe, 2008). But how a leader influences a PLC to operate in a manner that is inclusive, focused on student growth, and where teacher's instructional endeavors are shared and agreed upon, requires skills and conditions that exceed typical understandings of management.

Design Context

Public schools often fall under political scrutiny as service providers of the larger community. Accountability policies, whose aim it is to focus the work of schools on improving student achievement, have had some success improving instruction which is standards-based (Levy, 2010; J McTighe & Brown, 2005). But these policies have also led to system incoherence because of the undefined assumptions behind them. For instance, accountability policy makes student outcome data an important piece of school improvement. Teachers are supposed to use student data as a way of conducting self-examination into instructional effectiveness, with the expectation of improving instruction in the process. However, using student data as a metric for school improvement assumes that teachers first, know what the data mean, and second, know what to do about it instructionally to get better results. In fact, there is much evidence to suggest that this knowledge is not endemic in the teaching community (Marsh & Ikemoto, 2007). Many teachers need support for understanding and using student-generated data to guide instruction (Mason, 2003a).

The uses of data to guide instruction is another area where a collaborative approach to professional learning can have an impact on student achievement (Earl & Katz, 2002). In fact, PLCs can be leveraged in structured ways to support the improvement process. This is where a principal can have significant impact on teaching and learning. Principals play a role in this work through their influence on teachers. Specifically, principals make collaboration possible when they work to establish trust at school sites (Gray, Kruse, & Tarter, 2012). Trust is not something developed by accident or through simple transactions, but in fact requires structures and deliberate leadership behaviors to develop successfully (Bryk & Schneider, 2003; Heck, 1992; Leithwood & Poplin, 1992; Supovitz, Serenides, & May, 2009).

By creating structures teachers can work within, structures that have clear goals and purpose for coming together, principals reduce the ambiguity of dealing with data in ways that help support teacher's work. An example of this can be found in the research of Jay McTighe, which suggests that PLCs can be widely leveraged in three ways: as a group of Critical Friends, as analysts of student work, and as Continuous Learners (Jay McTighe, 2008). In the Critical Friends example, teachers engage in the practice of reviewing each other's lesson and unit plans, asking questions and giving feedback such that a reflective dialog might occur that

leads to improvement. As analysts of student work, teachers engage in the practice of reviewing multiple sources of student performance data such that a more global understanding of student needs might be identified, "a photo album of evidence, including results from traditional tests along with a collection of student work generated from local assessment tasks" (May 2008, p. 5). Finally, when teachers act as Continuous Learners, they engage in research about their subjects, about the field of teaching, and ways to enhance learning. This kind of learning places teachers among other evidence-based professions, where ongoing learning is the hallmark of high-quality standards of practice (Jay McTighe, 2008).

There is research supporting the collaboration of teachers around data as being beneficial to students (Gray et al., 2012; Jay McTighe, 2008; Wiley, Susan, & D, 2001). Teachers are fundamentally in charge of instruction, and only when instruction changes will student outcomes change as well (Supovitz et al., 2009). Leveraging PLCs in the endeavor of shaping instructional improvement is one of the most effective uses of teacher collaborative time (Little, 2007). However, at some schools, the conditions and culture of the site could make those efforts difficult especially if confrontational relations with leadership have been the historical norm (Gronn & Ribbins, 1996). Further, teaching is often an isolating endeavor (Minckler, 2013). It is not necessarily common for teachers to share their work with one another, especially if their work were to fall under critique, as has been the reality under recent accountability practices (Diamond & Cooper, 2007). How does a principal begin to break through these barriers, in effort to establish trust and build an evidence-based collaborative culture among teachers?

Local Context

The school district where I am conducting my work is a complex organization, serving approximately 18,000 students. My focus is at the elementary level, where there are 19 schools. Program diversity is rampant. There are magnet schools for the arts, sciences, dual immersion, and International Baccalaureate. There are three charter schools representing Waldorf, Edison Schools, and one that has no brand but simply operates as a charter. Other schools are traditional. Some schools are as small as 200 students or less, while others border on 700 students, the average size of one of the middle schools. There is demographic diversity as well, perhaps better characterized as demographic duality, as approximately half of all students are Latino while the other half are White. (It should be noted that south county areas of the district are far more diverse and have many more language groups, however, most English learners in these areas are still predominantly Spanish-speaking.) And while each school has very specific characteristics, they are all expected to implement the same district initiatives.

In the recent past, accountability policies created real challenges to elementary schools in this district. One challenge was created by the crux of the policy, the expectation that schools would use data to guide instructional improvement. For example, at the time No Child Left Behind (NCLB) was implemented, elementary teachers had no common time together to review student performance data. Prep time was allocated as an hour a day, 15 minutes before school and 45 minutes after school. Feeling the pressure to respond to the new demands to become data-driven, teachers began to question the structures of their preparatory time. Because the time was allocated individually, and had historically been for individual use, teachers soon pointed out that this limited structure for addressing student needs would not be effective in responding to the challenges of the accountability system. In response, district

leaders worked with the teachers' bargaining unit to carve out one hour a week, collecting 15 minutes a day from regular prep time, the purpose of which was to allow teachers to collaborate around student data to plan instruction. This hour is referred to as Early-Release Wednesday, and is still in place across the district.

However, just because teacher time was reassigned to allow for collaboration did not mean that the time would be used effectively. There have been ongoing struggles to making this time worthwhile. First, principals must know how to support teacher collaboration. A principal's role in PLC time is not implicit. Principals do not always have deep amounts of content knowledge to understand what teachers need during collaborative time to support the improvement process (Gronn & Ribbins, 1996). Further, principals too are challenged by how to use data to drive instruction (Mitchell & Castle, 2005). Simply because a former teacher has worked to become an administrator does not necessarily mean that the skills for instructional leadership were developed along that journey. For principals to meet the demands of accountability policies and the needs of teachers to operate collaboratively, they will need supports which inform their leadership practices and resources which lend themselves to those practices (Murphy, 1988).

Principals in this district experience pressure to implement district initiatives successfully, but they are mired in their varied commitments. Consequently, they implement initiatives, like Early-Release Wednesday PLCs, in different ways successfully. The variety of programs, demographics, and school size which they experience creates barriers between them because of the intricacies associated with implementation of each pedagogical approach. These intricacies serve to create silos out of schools' approaches to instruction, which precludes principals from identifying other principal colleagues as sources from which to learn.

As elementary principals implement PLCs in their varied contexts, and in a multitude of ways, whether they experience success or not, they often fail to identify how they can learn from one another to make the implementation process more effective. Principals in the district of study would benefit from working together to examine their current practices for implementing PLCs. If they had an opportunity to uncover the leadership work that has been successful, and implement that work without having to re-create processes on their own, principals would begin to see their CoP as an asset which has the potential to streamline their work. If principals learn that the best place for them to gain an understanding of what works and how to put that knowledge to use is by utilizing the learning of their principal colleagues, they will come to believe that they really do not have such varied contexts after all; that in fact, they are more alike than they are different. They would come to understand that learning from each other is their greatest strength, which would benefit the system through efficient leadership approaches.

Design Challenge

It was within this complex context that I derived my design challenge: to develop an operational and purposeful tool to guide the process of implementing effective PLCs on Early-Release Wednesday. Specifically, the design challenge was to develop a toolkit for principals to use that would support the development of "enabling structures" within the PLC process (Gray et al., 2012). This toolkit would allow principals to capitalize on each other's knowledge, since I created it side-by-side with a sample of them, using their documentation and processes as examples. In this way, the toolkit would provide common ground upon which

to implement successful teacher collaborative time, but also allow for enough flexibility for principals to use and shape the resources that were a best-fit for their sites.

Consulting the Knowledge Base

Clearly the nature of the challenges involved in implementing successful PLCs, are leadership challenges. Principals' work is directly connected to the likelihood that teacher collaborative time will result in instructional improvement (Heck, 1992; J. Spillane, 2007; Supovitz et al., 2009). The effective schools research cites that increased student achievement could be indirectly associated with a strong leader (Earl & Katz, 2002). Strong leaders are those who can establish mission and vision for the school, create an environment of trust, and establish clear goals for improvement (Bryk & Schneider, 2003; Minckler, 2013; J. Spillane, 2007; Supovitz et al., 2009). These leadership behaviors are at the heart of instructional leadership. Leaders who engage in and focus on these practices create the conditions for successful school improvement (Gray et al., 2012; Minckler, 2013; Supovitz et al., 2009).

Literature Review

Literature on instructional leadership.

Instructional leadership has come to be recognized as a critical component of a principal's work (Leithwood & Poplin, 1992). Principals who effectively exercise instructional leadership do so as part of a collaborative effort with other school professionals focused on improving and accelerating learning for all students (J. Spillane, 2007). An instructional leader has many roles and responsibilities; they are responsible for school functioning and operations, and they are the "torch-bearers" of ongoing improvement (Gunter et al., 2013; Leithwood & Poplin, 1992). This notion comes from the effective schools research which suggests that student outcomes can be improved through strategic school organization and strong principal leadership (Heck, 1992).

Principals must deftly maneuver between managing, leading, collaborating, and setting the conditions at the school site for leveraging teacher practice to improve student outcomes (Minckler, 2013). These roles are defined both by the principals themselves and by the teachers who experience their leadership (Supovitz et al., 2009; Wiley et al., 2001). While there are many understandings of what an instructional leader is, a central understanding in the research suggests that principals can affect student outcomes, indirectly, by influencing teacher practices. Heck (1992) argues that effective principal leadership positively affects the collaborative functions of schools by focusing on internal school processes which contribute to school effectiveness, such as feedback to teachers on instruction: "…three instructional leadership predictors are more important at classifying high-achieving and low-achieving schools; the amount of time principals spend directly observing classroom practices, as well as promoting discussion about instructional issues" (p. 30).

Additionally, Supovitz et al. (2009) states that principals can indirectly affect student outcomes by setting the conditions for high functioning collaborative teacher teams, such as creating structures, procedures, and routines for teachers to share practices and common challenges.

There are practical and normative challenges to being an instructional leader. Schools represent complex systems where established practices can be very difficult to change, especially at large schools with high degrees of curriculum complexity such as at the secondary

level (Heck, 1992). In an excerpt from a larger work on PLCs, MacMillan and Hargreaves write about the "Balkanization" (p. 3, 1992) of schools which occurs when groups of teachers align. Teachers working in small groups where they identify themselves by subject or grade can create professional identities that compromise the work of ongoing improvement. Teachers built relationships of power or hierarchy because of their political placement in the school; e.g., core versus elective, upper grades versus primary. These relationships can work to limit the purpose of PLCs to improve student outcomes, descending instead into debates for budgeting and resource allocation, or time for preparation.

Some ways to combat "Balkanization" include having cross-work groups, that is groups of teachers working together that do not necessarily represent a grade level or content area. Another way to protect against "Balkanization" is to be sure that no monetary or hierarchical award is given for positional leadership within the group, thereby defending against the urge for teachers with such privileges to act in protectionary ways to maintain their status and help to keep the focus on student learning (Hargreaves, 1991).

Instructional leadership practices are best leveraged in schools where the teacher community is more accepting of change, or where relationships among teachers need improvement (Wiley et al., 2001). Principals who can focus the staff on instruction and build trust among them can help to support collaboration. Successful instructional leadership strategies include the use of data within the structure of a PLC, which uses it to drive instruction (Supovitz et al., 2009). Harnessing the leadership abilities of others to strengthen PLCs and to help their members accomplish their goals is another marker of a strong instructional leader (Gunter et al., 2013). Finally, an instructional leader is one who can develop and sustain what Minckler calls "Academic Press" (p. 10). Academic Press can be defined as leadership for academic purposes: maintaining high expectations, encouraging individual achievement, and allocating resources accordingly – in ways that demonstrate the leader's commitment to these ideals (Minckler, 2013).

Leadership on building a collaborative culture.

Successful PLCs flourish in environments where leaders work to build collegiality among and between teachers (Minckler, 2013). The work that teachers do to support one another can be referred to as "social capital" (p. 2). Social capital can be defined as the resources available to a teacher by their membership in a social group; in this case, other teachers with whom they collaborate. Teachers benefit from social capital when they can use it to accomplish professional goals and gain a sense of belonging. Minckler goes on to write, "Collaboration among workers both uses and generates social capital. The quality of leadership determines whether social capital is spent on personal pursuits or organizational effectiveness" (p. 4). Social capital is at the root of the relationships teachers have with one another. A strong leader is one who can assist in the development of those relationships for the purposes of improving student outcomes.

In a seminal study of Chicago Public Schools, Bryk and Schneider could determine the principal behaviors associated with establishing trusting relationships among teachers. Principals begin the process of building an atmosphere of trust at the site by acting as an example, where principal actions meet teacher expectations. Trust is fostered in conditions where leaders do what they say they are going to do, demonstrating a reliable role-model to their co-workers. Schools where principals delivered on their commitments were places where

teachers were more likely to do the same (Bryk & Schneider, 2003). Principals are central to the relationship-building process in the way they treat teachers. For example, principals can demonstrate personal integrity when they acknowledge the vulnerability of others, listen intently to concerns, and avoid acting arbitrarily. Schools where principals demonstrated these characteristics were more likely to have teachers who felt they could openly share challenges and work together to better solve them. Finally, principals fostered environments of trust in their management of day-to-day issues. When principals responded competently to the myriad challenges which occur during a school day, teachers felt confidence in the management of the school. This confidence in their leader paid off in the practices of teachers, who felt a stronger commitment to instructional improvement because they were free to focus on doing their own jobs well.

In addition to setting the relational model for effective PLCs, leaders also contribute enabling structures that allow PLCs to operate effectively (Gray et al., 2012). Enabling structures are the sets of conditions leaders help to create that support collaboration and learning between teachers and others in the organization. Hoy and Miskel (2008) define an enabling structure as "a hierarchy which helps rather than hinders – a system of rules and regulations that guide problem-solving rather than punishing failure" (p.110). Teachers perceive schools to be more effective when decision-making is less centralized, but general operational rules are more formal, and when there is complexity in the ways teachers contribute to the organization (Hoy & Miskel, 2008). Developing shared goals, creating opportunities for teacher leadership, and working together for constructive problem-solving are all ways in which leaders directly affect and influence teachers (Serrat, 2009).

Literature on shared leadership.

A necessary characteristic of effective instructional leadership, in addition to building collaborative cultures among teachers, is to identify teacher strengths and leverage them within the PLC (J. Spillane, 2007). The multitude of responsibilities and tasks that must be completed in order to operate schools effectively are so numerous, it is necessary to share the work load among those staff at the site who have the skills to advance the work of improvement (Gunter et al., 2013). From an instructional leadership lens, teachers can participate and practice their own leadership among colleagues for the purposes of improvement (Irvine & Flood, 2004). Teachers demonstrate leadership in the PLC in many ways that can assist their colleagues in reflecting on their own practices. For example, acting as a "critical friend" during peer observations where teachers give each other feedback on instruction, is an effective way for teachers to demonstrate leadership toward instructional improvement (Jay McTighe, 2008). Principals can create opportunities for teachers to practice leadership through the organizational routines and structures they put in place which define the purposes and the work of PLCs (J. Spillane, 2007).

Literature on building a culture of data use.

Among the things PLCs do to improve instruction is to consider student performance data to inform instructional needs and shifts. Approaching data constructively is one of the markers of effective PLCs (Mary M. Kennedy, 1984; Kerr, Marsh, Schuyler-Ikemoto, Darilek, & Barney, 2006; Mason, 2003a; J. P. Spillane & Miele, 2007). And, because effective PLCs are an indicator of the nature of the leadership at the site, collaborative data use is also a leadership challenge. Research suggests that leadership skills are some of the most important

factors that influence effective data use within the organization. According to Kerr et al. (2006), "effective use of data may depend on several enabling factors including strong leadership" (p. 498), where leaders are knowledgeable about and committed to data use, which helps build a strong vision for data use in their schools. Leaders of systems where data use resulted in increased student achievement could build a data-driven culture, developing strong PLCs; these leaders were found to support their staffs in the processes of data gathering, analysis, and application (Kerr et al., 2006; Marsh & Ikemoto, 2007; Mason, 2003b).

Becoming data-driven requires a reliance upon evidence for practical decision-making (Earl & Katz, 2002). In order to accomplish this, leaders must use data to set the example of what they want from staff (Mason, 2003b). For instance, leaders who put data front and center as a part of staff discussions and decisions about instructional next steps are building a habit of examining evidence to determine outcomes. In order to build a culture of data use, it is also necessary to create an environment of trust and openness in which staff are willing to examine both their strengths and weaknesses (Marsh & Ikemoto, 2007). In such an environment, accountability can be framed as helpful rather than threatening, and questions can be posed about the differences in performance from one classroom or one school to another.

Creating environments which foster an attitude toward data as information is an important step because many teachers associate data use with the less well-received aspects of accountability (Kerr et al., 2006). When students underperform, teachers are frequently held accountable and their effectiveness as education professionals is often called into question. Under conditions where accountability meets professional scrutiny, teachers may have less willingness to use data or share results. Leaders can help education professionals understand that the improvement process focuses on growth, fostering an environment in which staff are accountable but no one individual is singled out. Under these conditions, leaders can build a culture of data use that is reflective and on-going, where student progress is monitored, and where decisions will have the greatest likelihood of improving student outcomes (Diamond & Cooper, 2007; DuFour, 1985; Kerr et al., 2006; Mason, 2003b).

From the collection of the research presented here, principals have an important role to play in supporting teacher-improvement efforts. By being a role model for the kind of behavior the principal wants to see among staff, following through on commitments, listening with a supportive ear rather than a critical one, focusing on improvement as a function of critical problem-solving rather than criticizing practices, and effectively managing day-to-day school needs, principals inspire teachers to focus their energies on improving learning. It will be imperative for me to build a tool that includes structures which support the development of these leadership characteristics.

It is important to remember that effective principals know improvement efforts are not only the principal's responsibility. Developing the leadership capacity of others through routines and structures which support professional learning, creates an organization which can operate effectively. It also supports the greater work of creating collaborative cultures at the school, where teachers feel comfortable sharing their practices and their data with one another. Under these conditions, a site principal can affect student achievement by influencing the ways teachers work together to maintain a focus on improving student outcomes. For these reasons, my tool should also contain structures that leverage the leadership of teachers and support the documentation process of the work of the PLC.

Finally, the toolkit must provide leaders with the ability to shift the school culture to a more collaborative environment where teachers have enough trust they are able to openly share their practices. In any culture where collaboration is the expectation, hope alone will not be sufficient to assuring collaboration happens. I will have to provide guides for principals dealing with negative staff who want to avert sharing their practices with others. Managing employees on the different levels of acceptance of new school practices will be a needed component of a useful toolkit. Additionally, a useful toolkit will provide resources for conflict resolution for when negative staff, or staff who simply do not understand the purpose of professional collaboration, sideline the work of the PLC and create roadblocks to the improvement process.

An Introduction to This Work

The next chapters present a journey for the reader through the design development process in a medium-sized school district in Northern California, endeavoring to improve the effectiveness of its teacher collaborative time and structures. Principals in this district are situated to learn from one another more than anyone else on how best to implement Professional Learning Communities (PLCs). The work of this study suggests that while principals have site roles and responsibilities related to their separate models and designs, the work they all do to address common problems of practice does far more to create a contextual frame for their roles as site leaders than their understandings of the specific goals of site initiatives. Finally, the reader will encounter a thorough discussion of the outcomes of this study, as well as recommendations for how this work can be expanded upon in the future.

In Chapter One, I discussed the various leadership characteristics that contribute to and facilitate highly-effective teacher collaborative time. Principals who establish a vision and purpose for the school, who maintaining focus on improving student performance outcomes, and who build trust among teachers by acting competently in their jobs, by following through on commitments and treating teachers with respect, create the "enabling structures" (Gray et al., 2012), which help to build efficacy among the staff. In turn, a staff with increased efficacy has the confidence to work together to examine current practices and determine how to best shift practice for the purposes of improvement. Principals in the district I am studying approach teacher collaborative time in different ways because they have varying levels of proficiency in these instructional leadership indicators. By building a toolkit with resources and research which support instructional leadership, principal practices in these areas will improve, which will ultimately influence teacher behavior, which improves instruction.

The following explanations and clarifications have been largely enlightened by Dr. Bernard Gifford, professor emeritus from the University of California at Berkeley, and my advisor. Teacher collaborative time is really a form of professional development. However, it is a kind of professional development; it is interprofessional development. Interprofessional development occurs when groups of professionals from various levels of experience or specialization come together in the same learning space (A. Kennedy, 2005). Interprofessional development helps to break down the walls of isolation that can build up between professionals who come with different background experiences and years of practice. When groups of professionals from varied experiences come together to learn, they share practices and begin to build a common language for the work they do. Interprofessional development capitalizes on the best of Social Constructivist Theory, allowing professionals to broaden and enrich their own understanding by collaborating with others. The opposite of interprofessional development would be whole-group learning.

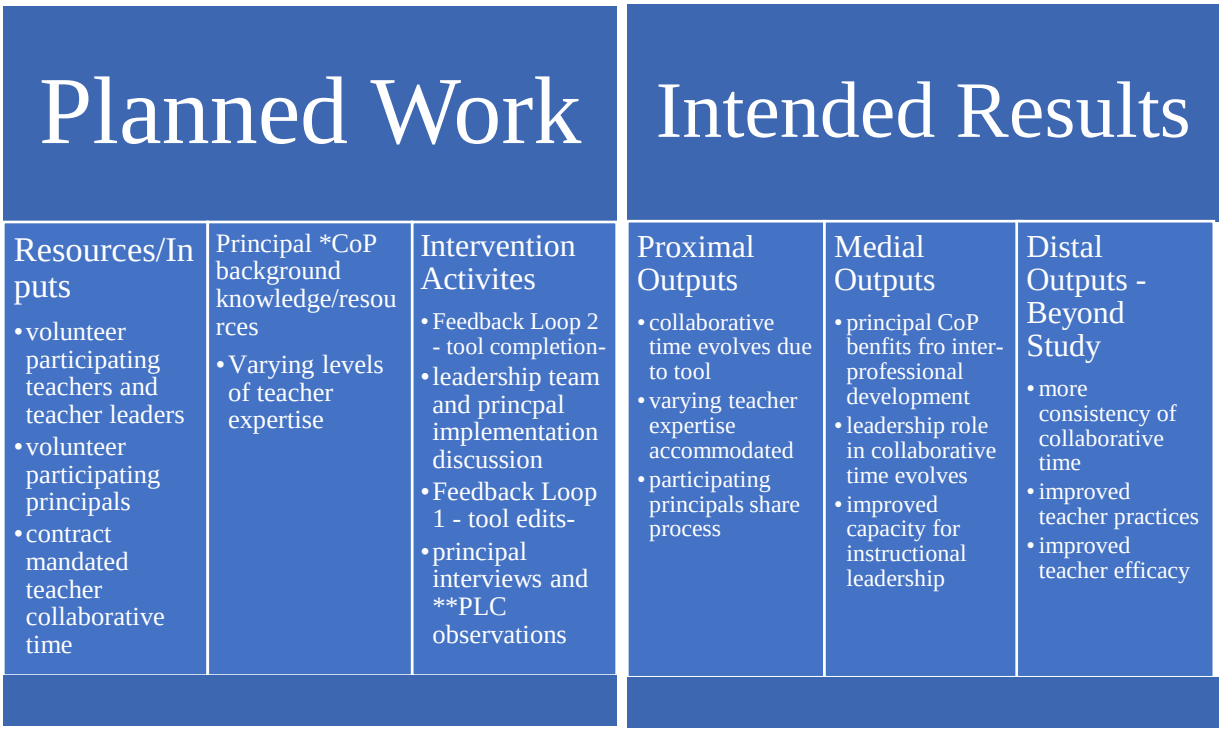
In the past, typical models for ongoing learning for teachers included having an expert come to a district where large numbers of teachers would be gathered to listen and learn more effective ways to instruct students. This form of professional learning is thought to be effective for teachers because the expert is often vetted via a book they have written or a training they have developed. It also happens to be very cost-effective. However, this kind of one-size-fits-all professional development tends to be highly ineffective for teachers. Because teachers are not able to process and interact in the new learning, much of what is experienced in this fashion is forgotten before they even get back to their school sites. For the same reasons, whole-group instruction is minimally effective for students in classrooms, the adult teachers themselves also do not benefit much from lecture and listen.

My Theory of Action (TOA) proposes that by engaging a group of leaders from a CoP in inquiry, that is examining their current practices for teacher collaborative time, then incorporating and adapting a set of resources meant to improve the effectiveness of this time, they will be able to learn from one another and create stronger interprofessional development opportunities for the teachers at their sites. The processes behind my TOA are presented within a program logic model framework I have utilized from the WK Kellogg Foundation. The program logic model (PLM) supports these processes to highlight professional learning as

it occurs, demonstrating the stages which provide the foundation for organizational learning and sense making. A logic model can be used to explain and monitor a complex series of interventions which promote system change within an organization. My PLM explains the process for developing the toolkit which will be used by the principal CoP to improve the effectiveness of teacher collaborative time, to improve teacher efficacy, and to create a shared understanding of instructional leadership.

The effectiveness of the PLM is dependent upon its ability to illustrate a plan of deliberate actions, and the way the outcomes of these actions change over time. Proximal and medial outputs are indicators for what is expected to happen because of the interventions in the short term and in the future after the interventions have had an opportunity to shape the organization, respectively. Distal outputs are those actions which can occur much later, beyond the scope of the present cycle of inquiry. Included in the illustrations is the role that feedback plays in the intervention process, helping the inquiry to evolve and become more sophisticated. As is the purpose of all TOA diagrams, mine begins with a listing of the necessary conditions which make the inquiry feasible and necessary. These conditions are presented in the left-most portion of the diagram and are labeled as **Resources/Inputs**. Below this rectangle are identified three specific resources: contract-mandated teacher collaborative time, volunteer principals, and volunteer teachers and teacher leaders. The mitigating elements of these resources are the backgrounds and experiences of principals, as well as the varying levels of expertise of teachers. The processes which define the progress of the learning within this inquiry are detailed underneath the rectangle labeled **Interventions**. The interventions describe the interactions between this researcher and the CoP with which I am engaging. Resources/Inputs and Interventions are defined in this model as the **Planned Work** of the larger inquiry. Flowing from this work are the **Intended Results**, which include **Proximal, Medial, and Distal Outputs**. Outputs can be thought of as what happened because of participating in this inquiry. My model demonstrates that the nearest expected outputs would be changes in principal practice through the sharing of the process of tool development and the resulting effects sharing has on the diverse teacher community and teacher collaborative time (Proximal Outputs). After the immediate impact of the toolkit, later progressions demonstrate how leadership practices improve and engagement in the principal CoP benefits the organization by sculpting a common understanding for effective collaborative teacher time (Medial Outputs). And finally, teacher practices and senses of professional worth improves, because of improved principal leadership practices, leading to a more consistent implementation of collaborative teacher time (Distal Outputs). As was earlier stated, distal outputs lie beyond the scope of my study. They are the potential impacts one might expect to see because of the interventions defined in this inquiry.

Theory of Action Logic Model p. 4 (Kellogg, 2004).



**Community of Practice (CoP)*

*** Professional Learning Community (PLC)*

Theory of Action Diagram

Theories of action are conceptions of why practices or policies ought to work. They provide a model or conceptualization that predicts how to move from a problematic state to a desired state (Argyris & Schon, 1978). A theory of action is more flexible than typical conceptual models because it can be reconsidered and re-envisioned given the results of empirical feedback, which tests the theory and informs its accuracy from evidence (Argyris & Schon, 1978). In this section, I describe the theory of action guiding the design of the Early-Release Wednesday Toolkit. Throughout, I draw from research and practical experience to develop and support my theory of action.

Enabling conditions, resources, and inputs

This portion will outline and define my Theory of Action diagram. When reading this diagram, I have ordered the sequence of events by category, as shown in the headings, with each discreet event in chronological order, starting from the bottom. Enabling conditions, resources, and inputs specifically refer to the elements related to this study that were already in place in the district of interest. My study will result in the creation of a toolkit to support the instructional leadership practices of the elementary principals who are the focus of my study. This toolkit, known as the [name of district] PLC Toolkit, will become the resource that principals use to make their teacher collaborative time more effective. However, this toolkit would not be needed if district leaders and leadership from the local bargaining unit had not united to make certain decisions. Among those was the reorganization of teacher preparatory time to provide one hour of non-student time per week, when all teachers are available to collaborate.

It is important to distinguish between the various forms of professional development experienced by school sites in the district of study. There are two types of professional learning offered: formal and informal. Formal professional learning is marked by outside speakers or presenters who come to train large groups of teachers and leaders in a set of skills and knowledge. Informal professional learning addresses those activities teachers engage in at the site level, often with other colleagues, to meet more immediate and relevant needs. The differences in teacher expertise play out in the various forms of professional learning. Novice teachers require learning opportunities which support the challenges they face in the classroom, as they benefit from practical solutions which address student behavior management and curriculum implementation (Kyndt, Gijbels, Grosemans, & Donche, 2016). More experienced teachers, on the other hand, may feel they already know enough about curriculum or discipline to be less engaged when such professional learning opportunities are provided. More experienced teachers value professional learning that is centered on a problem they are trying to solve, which can be applied in short order to the work they are doing in their own classrooms (Kyndt et al., 2016).

The toolkit I am creating will guide the professional learning for informal purposes. At its heart, informal professional learning is collaborative. Teachers engage over a common problem they are facing and work to develop ways in which to address it. There is research to suggest that when teachers endeavor to improve instruction, how they choose to do so is less important than the fact they have come together to discuss what might be done (Mary M Kennedy, 2016). My toolkit will include many ways in which teachers can work together to improve instruction, for implementing schools to select those resources which best fit the needs at the site.

In the recent past, accountability measures through No Child Left Behind (NCLB) created real challenges to elementary schools in this district. One challenge was created by the crux of the policy, the expectation that schools would use student-generated data to guide instructional improvement. At the time of NCLB implementation, elementary teachers had no common time together to review student performance data. Prep time was allocated as an hour a day, 15 minutes before school and 45 minutes after school. In response to this challenge, district leaders worked with the teachers' bargaining unit to carve out one hour a week, collecting 15 minutes a day from regular prep time, the purpose of which was to allow teachers to collaborate around student data to plan instruction. This hour is referred to as Early-Release Wednesday, and it is still in place across the district.

To create my toolkit, I begin with a group of volunteer principals who identify as having effective practices for implementing teacher collaborative time, known as Professional Learning Communities (PLCs). I will conduct a series of semi-structured interviews which address the following:

1. What typically happens on Early-Release Wednesdays?
2. What is your role in supporting PLC time?
3. What resources do you use to help conduct PLC time?
4. What challenges have you had implementing this time?
5. How does the level of teacher-expertise affect the way PLC time is implemented or what you do during the PLC time?
6. To what extent have relations with the external community contributed to the effectiveness of PLC time?
7. What would you want from a PLC toolkit if you had one?

I selected these questions when considering what kinds of feedback would organically guide my research. Question 1 (*What typically happens on Early-Release Wednesday*?) helps me understand what each volunteer principal, having self-identified as having highly-effective PLC time, uses PLC time for and what constitutes acceptable uses of the time. This question as addressed in my toolkit will help other principals have a frame for what PLC time should be like. Question 2 (*What is your role in supporting PLC time*?) helps me to know what supports principals provide directly, or if they generally stayed out of the process. This question will help other leaders have a context for how principals may work differently at different sites based on size, teacher needs, or specific agenda items during PLC time. Question 3 (*What resources do you use to help conduct PLC time*?) addresses what external or internal resources principals use to support teacher collaboration; for example, templates and documents, outside speakers, online resources, or practitioner literature. Answers to this question, can be included in the Appendices of my toolkit and can act as a direct support for other leaders. Question 4 (*What challenges have you had implementing this time*?) gets at the heart of what principals have all had to deal with to make teacher collaborative time useful and effective. By gathering responses to this question, I might better be able to inform other leaders how the challenges

they are facing were resolved at other sites, giving them some ideas and options. Question 5 (*How does the level of teacher expertise affect the way PLC time is implemented or what you do during PLC time*?) addresses the idea that not all teachers are at the same level of readiness for participating in a PLC. Principals who consider teacher expertise in their design of PLC time are differentiating teacher experiences and capitalizing on the strength of other more-experienced teachers to support capacity building. Question 6 (*To what extent have external relations with the community contributed to the effectiveness of PLC time*?) suggests that external partners in the community may support the work of teachers. This question could support the thinking of other leaders who have access to resources, but fail to use them because they are not considering the full range of possibilities for supporting teacher collaboration; e.g., how a parent liaison might learn why an assessment is given to students and better be able to support parent understanding of assessment results. Question 7 (*What would you want from a PLC Toolkit if you had one*?) simply clarifies for me what other elements might be needed to support leaders in implementing PLC time that my previous questions did not address.

Using these questions as a starting point, I will gather resources and begin to format the tool in such a way as to support other leaders with the identified activities and resulting needs. I will meet with these principals again, once the tool is developed, to collect their feedback and suggestions, revising the toolkit accordingly. Finally, I will rely upon one additional principal to take the toolkit to site leadership teams for feedback and suggested revisions, and ultimately, a plan for implementation and adaptation by other leaders. Figure 1 shows the progression of Tool Development for this study.

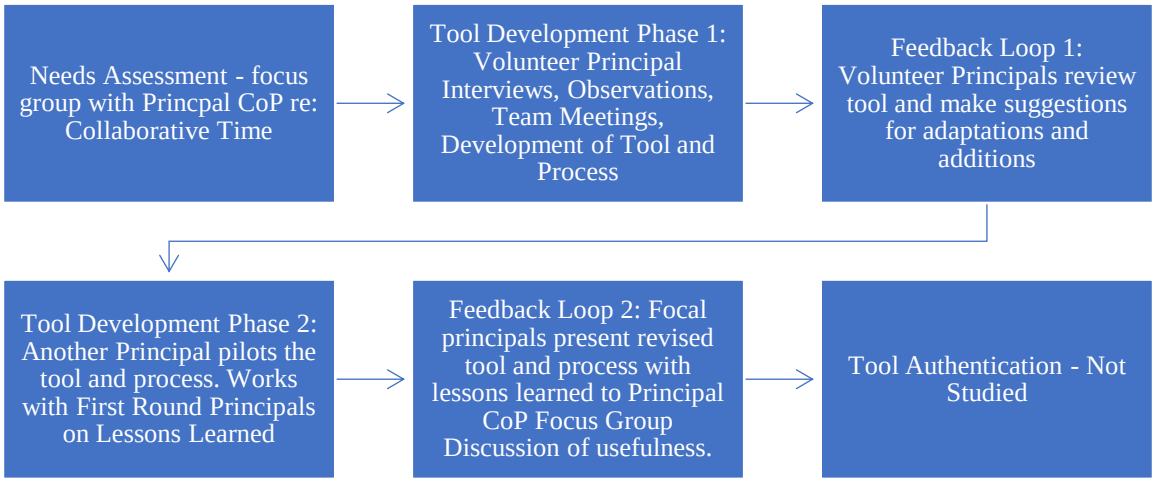


Figure 1. Tool development progression for study, working with principal community of practice (CoP).

One of the reasons principals have implemented collaborative time in inconsistent ways is because they have had different amounts of support. The elementary schools in this district are labeled by tiers. Tier 3 schools are large and serve large numbers of at-risk learners. Tier 2 schools are between three and five hundred students, representing a blend of proficiency and underperformance. Tier 1 schools have smaller populations and/or represent students who are largely proficient. Over the years, Tier 3 schools have had the most resources and carried the heaviest accountability burden, due to size and demographics. Teachers at Tier 3 schools have received much professional development to support their students, and leaders at Tier 3 schools, under accountability pressure to raise scores, have monitored programs closely, evolving their own practices in response to those duties.

In this district, there are two Tier 3 schools that have demonstrated student growth consistently. One possible cause for their success could be the fact that they are Tier 3 schools; schools where resources were plentiful and where leaders devoted much of their time to monitoring the success of instruction. In Tier 2 and Tier 1 schools, professional development resources were limited, as was the focus on accountability. These schools were encouraged to spend most of their time serving the needs of parent choice. Their implementations became the central focus. It became less necessary to continue struggling to discover the best ways to distribute leadership at their sites. With my support, principals from these varied contexts can work together to co-create a toolkit all schools can use to replicate practices which support effective collaborative teacher teams.

My toolkit is intended to shape principal capacity by building the leadership skills of a subset of principals (Weiss, Bloom, & Brock, 2014): principals who are intrigued by the idea of sharing their practices and using them cooperatively, to help improve collaborative teacher time for the entire principal CoP. This tool, co-constructed by principals with a basis of legitimacy among their peers, will be introduced to other principals within the context of the principals' CoP conversations about instructional leadership practices regarding use of collaborative time. At least one other principal will participate in action research to pilot the process of adapting and implementing the tool. Finally, all focal principal participants will present their research to the larger principals' CoP.

The introduction of a collaborative process to create a tool is expected to impact the professional development routines that principals experience, albeit as a distal outcome, by modeling a process for building principals' CoP. The leadership behaviors I am tracking include how principals communicate the changes in their leadership to the larger group of elementary principals. For instance, principals who help to create the toolkit will share what they learned about their own leadership practices that contribute to the development of effective collaborative teacher time, and how they have utilized that knowledge, while the implementing principal will discuss the process of taking the synthesis of those practices and adapting them for implementation at their site.

The immediate impact of the study will be the creation of a tool. Those who experience that impact are the principals who participate. Through pre- and post-interviews with the focal principals, I will establish baseline and outcomes measures of their conceptions of 1) how leadership is exercised in their elementary principal CoP; and 2) use of the CoP for professional leadership development. I will establish a baseline assessment of the need for such a tool through an initial focus group discussion regarding use of collaborative time in the

principal CoP. Then I will work with the focal principals on the process of refining their own leadership practices regarding collaborative time into an adaptive tool, and then presenting this tool to peers. I will assess the effectiveness of the tool creation process in changing participants' conception of how leadership is exercised in their elementary principal CoP and the use of the CoP for professional leadership development through observations, field notes throughout the process, and two feedback loops: when the toolkit is presented at the principal's meeting in its initial phase of development, and when the results of the pilot implementation are presented to the elementary principals. The effectiveness of the tool itself in supporting other principals to effectively lead their teams to implement collaborative time that improves instructional practice will not be measured in this study.

In summation, the creation of Early-Release Wednesday time, the mandated nature of its implementation, a volunteer group of principals to assist in tool development and an additional principal to assist with the implementation plan for the tool, are the enabling conditions, resources, and inputs I will draw upon for this study.

Intervention Activities and Proximal Outputs

There are many activities involved in creating the Early-Release Wednesday Toolkit. First, I will gather volunteer principals who wish to work with me in the process of tool development. I will identify these principals by presenting my study to the principal Community of Practice (CoP), asking them for assistance. Once I meet with these principals, I will conduct semi-structured interviews with them, outlined in the previous section, to help guide resource gathering and identify needed supports. Then I will craft the tool. I will meet with the volunteer principals once again to gather their feedback and suggestions for further additions and edits. The volunteer principals will then present the toolkit to the larger CoP, answering questions and requesting one more principal volunteer to develop an implementation plan for the tool, including suggestions for adaptation. Finally, I will work with this last volunteer and the site's leadership team to create a design for executing highly-effective teacher collaborative time on Early-Release Wednesdays.

These interventions are based upon the premise that principals lack the skills and resources to improve instructional leadership practices for utilizing collaborative teacher teams, but if they engaged in an inquiry process that was shared with the whole principal community, they could collectively build leadership capacity of that community. An example of the kinds of challenges principals face in building capacity for teacher collaboration is the problem of varied teacher expertise. In this district, it is most common for teachers to work together during collaborative time in grade level groups or in like content areas. This presents a challenge whenever a teacher moves and is replaced by a new teacher (or a teacher new to the school).

Often there are teachers in a PLC who represent the culture and habits of the PLC itself. Effective principals will frequently ask more senior teachers, who have this knowledge, to work closely with new teachers to ease their passage into the broader faculty. According to A. Kennedy (2005), this "continuing professional development" (p. 235), focuses on the learning that is built from the relationship with another person. The relationship is marked by the differences in expertise of one teacher to another; where one is senior and experienced while

the other is a novice. Much like an apprenticeship, the more experienced teacher helps to usher the new teacher into the profession.

The intervention that will be used in this design development research project will be the development of a tool to support the instructional leadership of principals as an outcome of a sequence of activities to define best practices through the study of highly-effective principals in the district of study, synthesizing those practices, and using them to develop a protocol for structured collaborative teacher time that can be adapted and adopted by any principal in the district. Effective collaboration is the result of principal instructional leadership that focuses on three things: setting school-wide goals, creating an environment of respect and trust, and focusing on student performance data as a means of measuring instructional effectiveness (Heck, 1992). The goal of this intervention will be to increase competency in these three areas by creating a model that exemplifies these instructional leadership characteristics. Figure 2 demonstrates the series of activities my intervention requires.

SESSIONS	*PROFESSIONAL LEARNING ACTIVITIES*
SESSION 1 **Interview of volunteer principals** ***PROCESS DATA**	Session Goal: Principals will be interviewed about their current practices for implementing highly effective collaborative time. Principals will be asked about their successes, challenges, and important learning about creating effective collaborative time for teachers. Researcher will collect, in addition to field notes, documents and other related "enabling structures."
SESSION 2 **One-hour principal work session** ***PROCESS DATA**	Session Goal: A draft of the toolkit will be presented to participating principals, based upon inputs and gathered supports from previous interviews. Principals will answer interview questions related to the toolkit draft and make suggestions for additions, clarifications, etc.
SESSIONS 3 **Principal presentation of the tool** ***PROCESS DATA**	Session Goal: Participating principals will share the revised toolkit to the larger Principal CoP. Feedback will be gathered from the larger group around relevance, coherence, and ease of use. Then another principal volunteer will take the toolkit to their leadership team, to discuss a process for piloting the toolkit.
SESSION 4 **Presentation of proposed protocol to leadership teams**	Session Goal: Participating principal, with support from the researcher, will present the proposed protocol to site leadership teams, to determine how the tool should be adapted and implemented.
SESSION 5 **Capturing pilot process** ***PROCESS DATA**	Session Goal: Piloting principal and researcher will discuss process for adaptation and implementation outcomes. Any documents from the implementation process will be shared with the researcher. A plan for implementation and adaptation will be created.
SESSION 6 **Principal CoP follow up interviews** ****IMPACT DATA**	Session Goal: After presenting to the larger Principal CoP, follow-up interviews with participant principals will establish the impact of the toolkit on their practices in the present and going forward.
SESSION 7 **Final presentation to elementary principal CoP**	Session Goal: Piloting principal will share the process of implementing the tool for structuring collaborative time. Implementation plan will be shared and larger CoP will share suggestions and feedback.

Figure 2: Detailed tool development sequence of activities for principal Community of Practice (CoP).

The Current State: Session 1

To capitalize on the Community of Practice (CoP) all elementary principals participate in, I began my work by interviewing participating principals about their current practices for collaborative teacher time. This session set the stage for creating understanding about what commonalities exist across schools in the work they do to facilitate professional learning communities (PLCs) in ways that lead to improved student outcomes. The semi-structured interview questions follow:

1. What typically happens on Early Release Wednesday at your site?
2. What is your role in supporting PLC time?
3. What resources do you use to help support PLC time?
4. What challenges have you had making this time effective?
5. How does the level of expertise of the teacher affect the way this time is implemented?
6. To what extent do relationships with the local community impact collaborative time?
7. Thinking back to when you first implemented collaborative time, what would you have wanted from a tool to help you?

Adaption Feedback Loop: Sessions 2 and 5

At critical phases throughout this tool development, I ask for feedback for the purposes of adaption of the toolkit. The central tenet of the development of this toolkit is that through an iterative process, using the feedback of potentials users, the toolkit becomes more relevant; it is coherent, or meaningful within the context of the school in which it operates; it brings together the work of various stakeholders at the site to unite them in a common purpose; it is easy to use; and, it has flexibility and adaptability elements throughout the toolkit itself, which allows for a multitude of users to benefit from its supports (Honig & Hatch, 2004; Tyack & Hansot, 1982).

Principal Follow-Up Interviews: Session 6

To measure the impact of the toolkit on principal behavior and practice, I will hold a series of follow-up interviews after the presentation of the tool and the implementation process. My goal is to measure to what extent the principals have come to value their CoP by participating in a shared learning process which will result, ultimately, in a toolkit to support all principals. Impact data will also tell me how the principal CoP has strengthened through the process of participating in my study.

Presentation for Feedback: Sessions 3, 4, and 7

Presenting the toolkit in various phases of the intervention allows for principals who are not participating in the study to develop context for the efforts of the study and provide critical feedback to inform next steps. In Session 3, the first group of participating principals share the toolkit with their colleagues. Discussion of the process of tool development and reasons for why they believe the toolkit will inform the larger CoP supports the piloting process by another principal. In Session 4, the piloting principals present to their leadership teams, reviewing the toolkit and gauging the degree of relevance, coherence, and ease of use the toolkit provides for improving teacher collaborative time. Finally, in Session 6, the revised and adapted toolkit is presented to all principals, and all principals share feedback concerning the Implementation Plan for supporting highly-effective teacher collaborative time.

Medial Outputs

Medial outputs for this study will be the result of investigating and implementing the toolkit. They represent the desired behaviors that principals should exemplify when they leverage common knowledge and experiences to solve problems. By using the tool, principals will become better instructional leaders who can support teachers in their work to improve student results. By implementing the toolkit, principals will develop an understanding that their own professional practices are constantly developing, and are made better by collaborating with the larger CoP. Ultimately, principals will learn that they have the capacity to use inquiry, much like I have for this study, to assess their own needs for problem-solving and use their CoP as a mechanism for professional and "interprofessional development" (Hammick, Freeth, Koppel, Reeves, & Barr, 2007).

Specifically, the desired behavior of principals would be consistent development of teacher leadership to implement an effective protocol for use of collaborative time to facilitate instructional changes that can improve student outcomes. A protocol for the one-hour collaborative time would be a structural support for teachers to reflect on student performance relative to common core standards and make determinations about changes in practice. An adaptive process for adopting that protocol would allow principals to set the conditions for effective collaboration and encourage teacher leadership. Research suggests a strong link, not only between peer influences and teaching practices, but also between principal influences and teaching practices (Supovitz et al., 2009). A model for using the one-hour time that promotes teacher decision-making through the lens of student work, new common core standards, and instructional strategies connotes respect from the principal for teacher professional knowledge. The research on collaborative teacher teams reveals that teachers will change their instructional practices more readily when they feel a sense of efficacy about their work because they are respected by their principals, who trust them to make good decisions for their students and support them in those endeavors (Minckler, 2013).

Distal Impact

Because this is a design study research project, the work I have begun is expected to be iterative, evolving as others continue to adapt and shape this work. To that end, there are points that may result from my study that are beyond the scope of my work now. Research suggests that teachers who have confident leaders, capable of deftly handling all aspects of leadership including instructional leadership, have higher senses of efficacy over their own teaching practices (Gray et al., 2012). It would seem confidence is catching. Measuring if teachers experience greater efficacy because of having a more confident instructional leader would be an element of study which exists beyond this work. Trust, collegiality, and engagement in the work of teaching are also outcomes of strong instructional leadership practices (Warren Little, 1982). Measuring if these teacher experiences improved because of implementing my toolkit would be a next developmental step of this work, as would gathering teacher feedback as to their feelings that collaborative time had become more effective and useful.

Theory of Change

The preceding Theory of Action and the activities involved in this study are predicated upon a theory of change which suggests that leaders can support one another through their combined CoP by sharing practices for solving common problems in their work. Principals need to implement structures for collaborative time that facilitate teachers working together

and learning from one another in ways that build teacher efficacy and promote ongoing improvement through instructional problem-solving. There is value to teachers working together as a community. In Aileen Kennedy's (2005), "Models of Continuing Professional Development: A Framework for Analysis", a *Community of Practice Model* (pp. 345 – 346) of professional development occurs when practitioners with varied experiences come together for a common purpose to deliver improved services to stakeholders. When professionals work together in a CoP, their knowledge cannot be measured as a collective of individual expertise, but rather is demonstrated in the power of their combined expertise, which creates richer professional learning as a result (Boreham, 2000).

A teacher CoP is an interesting example of the combined expertise referenced here. At all of the schools I worked with to create this tool, there are teachers at varying levels of expertise; they range from novice to expert levels of knowledge, depending on a number of factors, including how many years of experience they have teaching, what kinds of professional development they have been exposed to, and how many opportunities they have had to work as a team, Given the *Community of Practice Model*, teacher collaborative time is essential for the professional learning of all teachers, regardless of their experiences, because in the act of sharing information and decision making, teachers are able to learn from one another, thus contributing to their effectiveness both as individual practitioners and as a team of working professionals.

By examining successful collaborative structures from some of the schools, principals at schools with less effective teacher teams can develop the capacity for greater effectiveness, allowing them to work with teachers at their own sites to mold and differentiate models of effective collaboration with cultural, demographic, and site-specific considerations. In this way, all principals will have protocols for teacher collaboration that have ongoing improvement as the focus, but also reflect the individuality and diversity of the sites within the district elementary structure. Ultimately, the learning from participating in this intervention could result in system-wide evolution of the role of principal as one who not only manages a school site, but whose work is also fundamentally about shared instructional leadership that capitalizes on relationships with teachers to develop efficacy and commitment to improved student outcomes.

In the focal district's elementary school structures, principals have been encouraged to diversify programs. Because of the program diversity that exists across all elementary schools, principals relate less to each other's challenges because of the specific nature of their working contexts. However, all principals must implement collaborative teacher time. By inviting principals to co-create a toolkit which captures the successful practices they are using at their respective sites, they will begin to recognize the commonalities of their work. They will work as models for one another and will be a central part of the problem solving for their own communities of practice. Finally, by inviting another principal to process the toolkit with their leadership team and to give recommendations for how to adapt and evolve the toolkit into something that fits the unique context of the school, principals as a group will understand that regardless of their implementations, they can still work together to collectively support the problem-solving process.

While the process of developing and refining this tool is expected to impact principal learning about shared and instructional leadership, the focus of my research is on developing a

tool with the cooperation of principals, a process which will strengthen the principal CoP. The research from which I draw for this study indicates that providing structures, routines, and procedures is representative of the instructional leadership skills principals use to establish the conditions for creating collaborative cultures in schools (Bryk & Schneider, 2003; Heck, 1992). By establishing these enabling structures, principals can capitalize on the instructional leadership of teachers to determine which instructional shifts can have a positive impact on student outcomes. The intent of my work will be to collaboratively create a tool and create supportive routines for using and adapting it to the specific site context, to support principal leadership regarding the use of collaborative teacher time.

I will begin tool development by studying the protocols and processes for collaboration that volunteer principals who have chosen to participate in my work have put in place. By working with these principals, I will develop a practical model of effective collaborative teacher teaming which puts forth enabling structures, protocols, and processes. I will then work with a different principal to consider the toolkit with a leadership team, then gather feedback on how they would implement it. Finally, all participating principals will present the protocol and adaptation processes to the rest of the elementary principals in the district. These iterations will allow each school to develop teacher teams who use collaborative time more effectively to address instructional needs, and result in teams of teachers who experience greater efficacy and demonstrate greater commitment to school goals and student outcomes.

Design Challenges

The dilemma faced by many elementary site leaders is that they lack clarity about how to implement collaborative teacher teams, and their resultant incoherent approach is in constant tension with the expectation that they will be instructional leaders. Principals therefore use collaborative time in a variety of ways that often do not support ongoing improvement efforts. The desired outcome for this design study would be the development of a model protocol that principals could use for the one-hour collaborative teacher time that will support changes in teacher instructional practices that could improve student outcomes, and a proposed process for its adoption by sites. While district leaders have directed principals to create collaborative teacher teams and have created a schedule that allows for an additional hour of collaborative time per week, there has been no clear instruction on how to do so in ways that support the improvement process.

Feldman and Pentland (Feldman & Pentland, 2003) state that researchers need to focus on the range of leadership roles, the routines within school organizations in which leadership is enacted, and the tools used to structure or focus those routines for the purpose of school change. This intervention is intended to build principal capacity by focusing on a subset of principals who will receive the following "treatment" (Weiss et al., 2014): three principals, with strong collaborative practices, will engage in action research to create tools to be used by principals to support instructional leadership practices regarding use of collaborative time. Another principal will participate in action research to pilot the process of adapting and implementing those tools. Finally, all four principals will present their research to the larger principals' CoP.

By initiating a model process for addressing problems of practice within the principals' CoP, this intervention may ultimately result in principals evolving expectations of their roles regarding instructional and distributed leadership. Supporting principals to create tools for use at their own sites may extend these effects to practices at their own sites, perhaps impacting

teacher leadership development. However, the degree to which these outcomes are achieved is likely to vary. Variations can exist across many contexts; for example, the degree to which principals are committed to learning from one another is a point for variation. Changes to the membership of the principal group may lead to variations in the way the tools resulting from this work are used to improve the effectiveness of the collaborative process. Other contextual changes or events that occur during the intervention may also cause results to vary. Regardless of the likelihood of variation of the results of this intervention, the outcomes from it are intended to build upon the best practices of principals who are successfully developing instructional leadership through collaborative teacher teams.

Feasibility

Given that collaborative time has already been implemented at the district level, and that all principals have had to face the challenges of implementing the time effectively, there are opportunities for developing better collaborative structures at schools through a co-created toolkit. The Director of Elementary Education in this district is willing to support this study with said principals, and has worked in partnership with this researcher to create time within Elementary Principal Meetings for this research to occur. Additionally, this research would require the participant principals to engage in all the activities of the tool design and be willing to change their current collaborative structures to better fulfill the intended use of this time, which is to focus teacher collaborative efforts on student outcome data for implementing changes to instruction that result in improved student results.

Research Design

In Chapter 3, I describe the kind of research conducted to determine the success of my proposed toolkit and its design. I first present the methodological choices for this study and selection of participants and identify the "unit of treatment", (Creswell, 2007). Second, I will review basic elements of the research that includes impact and process data. Next, I will present expected data collection processes, strategies, and techniques. Then, I will discuss the procedures that will be used for data analysis and issues related to reliability, validity, credibility, and transferability. Finally, I conclude by presenting safeguards against bias and issues related to rigor, both to ensure rigor and protect against threats to rigor.

Chapter 3: Research Design and Methodology

The purpose of this design study is to develop a toolkit for elementary principals to use to implement highly effective teacher collaborative time. The toolkit will support principals' needs to collaboratively address a real education problem: how to be more effective instructional leaders through facilitating distributed leadership in the context of collaborative teacher teams' weekly one-hour collaborative meetings. To do this, principals must understand the conditions necessary to promote collaborative teacher teams and create structures for those teachers to inform the broader mission of the school through focused work on improving student outcomes. The research informs about the leadership behaviors effective leaders use to promote collaboration among teachers doing the work of ongoing improvement. The toolkit I am creating, in partnership with a voluntary group of participating principals, includes resources for these behaviors. However, helping principals reach greater understanding for instructional leadership is a distal outcome of this work. The immediate outcome of this design-based research intervention will be the joint creation of a protocol that represents the best practices of highly functioning collaborative teacher teams, and a proposed process for adapting and adopting that protocol that encourages principals to support and nurture teacher instructional leaders.

To understand the importance of a toolkit to support collaborative time, it is necessary to understand the context of such collaboration. In the district of study, an agreement was made between the negotiating bargaining unit and district level management, to set aside one hour weekly of teacher preparatory time. At such time, students are released from school an hour early, such that all teachers at the site are free to collaborate for the purposes of instructional improvement. This collaboration is a form of informal professional development and is distinct from the historical design for teacher professional learning. Teacher professional learning, which is formal, is marked by a large gathering of teachers by content area or grade level, where a presenter or consultant delivers relevant content to teachers, for the purposes of deepening their knowledge for instructional practice. The problem with formal professional learning is that it has not proven very effective. Years of study about teacher professional development suggests that teachers who are subjected to large-scale, district-initiated, professional learning are far less likely to come away from those experiences with anything which could applied in the classroom (Kyndt et al., 2016).

Teachers most benefit from learning experiences which are self-selected, where they get to discuss learning with other teachers who have similar problems of practice and interests as they (Mary M Kennedy, 2016). This kind of learning is considered informal, but has the highest metrics of effectiveness for translating problems in practice to changes in instruction. According to Hammick, Freeth, Koppel, Reeves, & Barr (2007), this kind of teacher professional learning can also be considered as "interprofessional", (pp.776) learning, because it brings together teachers from various backgrounds and levels of expertise into one place for the sake of deepening knowledge and improving student outcomes.

In the district of study, teachers' participation in the one-hour of collaborative time is meant to facilitate their work as a community of practice (CoP). The time to collaborate is essentially time for groups of teachers to develop relationships, where the learning that happens in the group is an outcome of each participant's interactions within it. Rather than passive exchanges of information, the marker of formal professional development, in a CoP, teachers actively seek to find answers to the problems they are dealing with in the classroom,

and each person's learning is made richer by the fact they have engaged in a mutual investigation, sharing one another's insights and understanding (A. Kennedy, 2005).

However, the reality of how this one-hour collaborative time is used and its effectiveness also has a lot to do with the leadership structures at the site. Some sites have a one-hour collaborative experience indicative of the communities of practice heretofore mentioned, while other sites experience confusion over the purpose of the collaborative time. As my study has indicated, the chief reason different sites implement the time to varying levels of effectiveness should do with how the principal's administrative supports shape the time. A toolkit which would support the leadership strategies necessary for implementing teacher collaborative time in a meaningful way would create greater system effectiveness because there would be more standardized use of this time.

For my research, I have selected a design-development study with an action research orientation. The development of this work lends itself to design research in that it: 1) identifies an educational challenge (instructional leadership to promote teacher collaboration); 2) contextualizes the study within an educational setting (public elementary schools); and 3) designs an intervention or remedy (toolkit) to impact or better understand the identified challenge. Design development studies have several key characteristics that support the development of a research-based intervention. These characteristics include preliminary investigations, theoretical embedding, empirical testing, documentation, analysis, and reflection on process and outcomes (Akker, 1999). The goal, however, is not to implement complete interventions, but to arrive at prototypes that increasingly meet the innovation purposes and requirements (Akker, 1999). The process of design research is often cyclical and follows phases of analysis, design evaluation, and revision until an acceptable balance between ideals and realization has been achieved (Akker, 1999).

These characteristics were present in this study. Preliminary investigations involved consulting the literature and practical examples to identify ways in which the problem has been previously addressed. My literature reviews and experience as a principal and district-level program manager served this purpose. Theoretical embedding means the rationale for the intervention is made explicit based on findings from the preliminary investigations and connection to the local context of the problem. My Theory of Action (ToA) explains the logic of my intervention design. Empirical testing is the process by which I will investigate the effectiveness of the design. My research design, data collection, and data analysis are the means for this testing. Finally, documentation, analysis, and reflection on the process and outcomes are necessary so that methodology of the design and development is made visible to allow for design principles to be enumerated. Protocols will be in place to ensure that my role in the development and investigation of the design is well documented.

Design development studies and action research methodology share similar characteristics, including: 1) a concern with developing practical knowledge to solve complex problems; 2) a research in action focus rather than research about action; and 3) a collaborative in nature (Coughlin & Brannick, 2007). Due to these overlapping and mutually reinforcing characteristics that closely mirror my design challenge, I have chosen to utilize an action research approach.

Design Development Research and Action Research

Design development studies are similar to action research methodology in that they both are concerned with developing practical knowledge to solve problems (Coghlan & Brannick, 2007). This design development study has an action research orientation because I

am situated in the intervention as both researcher and implementer. One of the central tenets of action research is to guide against bias, which is a concern considering my dual role in this intervention.

A design study is a suitable methodology for this purpose because the researcher is the agent who creates the intervention. Design research is used for complex tasks for which only a few validated principles are available (Akker, 1999). In those instances, the impact and overall understanding of the intervention may not be well understood. The object is not to produce an entirely complete intervention, but rather to produce prototypes for which the purposes of the intervention are reached. Strong principal leadership that leads to successful collaborative teacher teams is marked by an ability to create a culture of trust, where teachers focus on improving student outcomes (Elmore, 1993; Heck, 1992; Levy, 2010).

The action research part of this intervention involves my developing the design, as well as making the design happen and evaluating its impact. The action research component is best characterized as, "insider-action research which can be framed in terms of managing change or solving a problem; it is directed at confronting and resolving a pre-identified issue" (Coghlan and Brannick, 2007, p. 65). While I am the lead developer, the collaborative nature of my design process, with the participating principals serving as co-developers, is also typical of insider action research (Coghlan & Brannick, 2007).

Data Collection Strategies

My proposed design relies on qualitative methods to measure needs assessment data, process data, and impact data. I will begin this study with a questionnaire regarding current professional learning community (PLC) practices because I am working with a small group of principals for whom a survey would not be useful or appropriate. A questionnaire can help quantify the baseline of where a principal believes their practices are, in relation to other quantified best practices. A questionnaire can also measure the impact of the study on their leadership. A series of semi-structured interviews will give me a needs assessment for the tool this intervention is designed to develop for the larger communities of practice. The responses of the interviews will provide the groundwork for participating principals.

At the end of my study, it will be the responses from the focus group that will serve as impact data for lessons learned about conceptions of leadership, the role of the principal, and the value of their principal group as a CoP which can support leadership. Feedback loops for tool development with the principal CoP will support the development of the tool, and will provide process data, along with transcripts of meetings with the focal principals, field notes, and reflections on the tool creation process. Finally, follow-up interviews with all participating principals and with the initial focus group will help measure the impact of my study across the two parallel practices I am trying to shift: the implementation of effective teacher collaborative time and the ways principals learn from one another in a larger CoP. Defined events for these data collection opportunities are described in Table 3.

Table 3

Data Collection Strategies for Collaborative Teacher Team Tool Development

Impact Data		
Method	**Subjects**	**Targeted Dimensions of Learning**
Pre-Intervention Questionnaire	Participating Principals	Current Practices for Implementing Collaborative Time/ Needs Assessment
Pre-Intervention Focus Group	8-10 Volunteers from Principals' CoP	Conception of the Problem/ Needs Assessment Conception of the value of the CoP for addressing Problems of Practice
Post-Intervention Follow Up Interviews	All elementary principals	Conception of the Problem/ Needs Assessment Conception of the value of the CoP for addressing Problems of Practice
Process Data		
Method	**Subjects**	**Purpose: Look for what is not working; adjust intervention & tool creation process**
Transcripts of Focal Principal Meetings	Focal Principals	Reflect on and analyze process of work with focal principals relative to targeted learning dimensions, e.g. analysis of needs assessment targets Role of Leaders in a Community of Practice (CoP); Review of documents targets Elements of Effective Use of Collaborative Time (Authentic Teacher Leadership, Professional Norms…)
Field Notes	After each Critical Event with Principals	Reflect on what worked, what did not, how to adjust intervention and tool creation.
Documents	Teacher Teams	Collect documents principals use to define purpose and outcomes of collaborative time; e.g., lesson/intervention planning docs.
3-4 Observations	Teacher Teams, one from each focal principal's school	Elements of effective use of Collaborative Time
Transcripts of 3 Principal CoP Meetings	Introductory, Feedback Loop 1, Feedback Loop 2	Understanding of the Problem of Practice (PoP), and the role of a CoP in addressing a PoP; Feedback for perceived usefulness of tool to support principals addressing the PoP.

Impact and Process Data

There are many different research methods used to conduct educational investigations. For this study, I selected a qualitative research approach. The intent of qualitative research has been defined as attempting to understand a particular social situation (Locke, 2004); this is similar to the PoP that this design study will examine. Given that I am trying to engage principals in creating a model for structuring collaborative time using a training sequence that will build instructional leadership competency, I will need to collect baseline and outcome data to know if my intervention/training sequence achieved the desired impact. Also, I will need to collect process data as I administer the intervention, first so that I can understand which events and elements led to the outcomes, and second so I can adjust the intervention appropriately to address unforeseen factors. Therefore, I will collect two main types of data for this study: impact data and process data.

Analyzing outcomes will help me understand if my ToA was correct. Process data will highlight which processes contributed to the outcomes. For instance, if outcome data suggests that principals better understand the necessary structures and processes for supporting collaborative teacher teams, then process data would reflect that principal learning about instructional leadership practices for facilitating teacher teams resulted in changes to their collaborative time increasing effectiveness. However, if my outcome data is marginal then the process data should reveal the shortcomings of my ToA as it relates to outcomes. For example, looking at process data from the leadership team meetings will help me understand where my theory was flawed, should outcome data reflect few changes to collaborative structures.

Questionnaire.

Impact data generally measures growth from a baseline to an end. In my research, I will utilize a questionnaire to establish outcome data. The questionnaire will be administered as a component of a larger professional learning for principals, as a means of capturing learning as from the course I created in conjunction with my study. The survey will help me establish whether my intervention resulted in the kinds of structures for collaborative time that leverage teacher knowledge toward improving student results.

Semi-structured interviews and observations.

Process data will also be collected in this study. Process data are qualitative in nature and are meant to capture the complexities of the change process initiated by the design. The process data I will collect will come from semi-structured interviews with participating principals to discuss their current structures and processes for collaborative teacher time, and again when I meet with a piloting principal after discussing the implementation of the toolkit with their leadership teams. Additionally, I will collect extensive field notes from observations at the participating sites of teacher collaborative time. By analyzing process data, I will be able to understand which aspects of my intervention were most supportive in developing principal understanding of collaborative structures, such that the resulting model for collaborative time can be easily implemented across the system.

I plan to offer six sessions with participating principals. The overarching goal of these sessions is to increase principal understanding of the instructional leadership practices that facilitate collaborative teacher teams, so that they can implement changes to the structure of their collaborative time to improve effectiveness. Baseline data will be gathered from a questionnaire which will establish present conditions for collaborative time across the system.

Each critical event in the intervention will be recorded with my role being the participant/observer. After each event, I will review the process to identify gaps or problems in the process and to determine what adjustments need to be made in the next critical event in the intervention process. I will record and then discuss my observations with a critical friend. I will bring process observations to the principals with whom I am working to refine the intervention process. At the end of the intervention, I will review all data on the intervention process to develop recommendations for the next iteration, in which other principals implement the protocols using the process developed through this design/action research. The data collected through this process will reflect the cyclical nature of data collection and analysis in design development studies (Akker, 1999; Creswell, 2007).

The data analysis for this study will follow Creswell's (2007) process for descriptive qualitative data analysis. First, I will gather and organize the data. Next, I will review the data to look for patterns and trends. Finally, I will develop descriptive narratives to analyze the data further to discern patterns and initial outcomes (Creswell, 2007). The impact and process data will be analyzed differently. Impact data analysis will involve looking for changes in principal learning, pre-course and post-course. Process data will be used first to adjust the intervention itself over the course of the research study, and ultimately, to discover the connections and causal implications for the impact. A detailed analysis will begin to provide evidence for existing relationships as they are expressed in the theory of action.

Selection of participants.

The selection of participants will be based on a sample of principals who volunteer to work with me on my study. There is a great amount of diversity among the elementary schools in the focus district. I wish to develop a sense of how collaborative time is used across different pedagogical designs. I also want to support the principal CoP by developing a tool that can support any school with implementing more highly effective collaborative time. The final metric for the effectiveness of this tool will be the relevance, coherence, and ease of use feedback I receive from the principal and leadership team which chooses to pilot the tool. Ultimately, the principal CoP will identify if they have a common problem implementing teacher collaborative time, and identify if the solution is something they can all share in: a toolkit with a variety of resources and frames for intervening in teacher collaborative time to make it effective for the improvement process.

The volunteer group of principals who committed to working with me on tool development represented the spread of elementary school models throughout the district. Figure 1 describes the volunteer group and the initial processes behind the earliest phases of tool development.

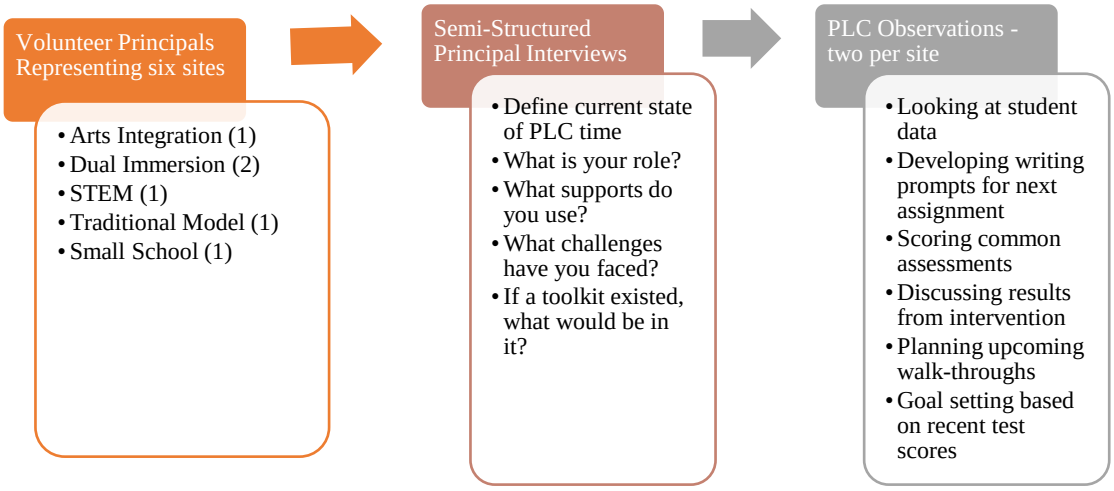


Figure 1. Description of the volunteer group and the initial processes behind the earliest phases of tool development.

Unit of Treatment

For this design study, I will select volunteer principals whose schools represent the diversity of programs which exist across the district. I will also select one principal from a school not involved in the original tool design to pilot the implementation process. In this way, I can ensure greater validity of my design, as I will control for some of the external variables. The specific characteristics of the principals include having an interest in developing an effective model for collaborative time and the desire to better leverage teacher expertise in the ongoing improvement process. Additionally, I will be collecting information to measure the extent to which collaborative time changed over the course of the intervention. A change in the way each site uses collaborative time is an indication of a shift in principal behavior, an important measure considering principals are the unit of treatment in my study. Finally, as participant-researcher designing and leading the study along with the professional development intervention sessions, I will be intimately involved at all levels, and therefore my action research role must encompass "simultaneous action and research in a collaborative manner" (Coghlan & Brannick, 2007).

Within this study, I will collect two feedback loops. The first one is from the original group of principals who helped me with initial tool development. The second is from a principal and leadership team external to the tool development, who developed an implementation plan based on their investigations of the tool. Figure 2 describes the feedback loop process.

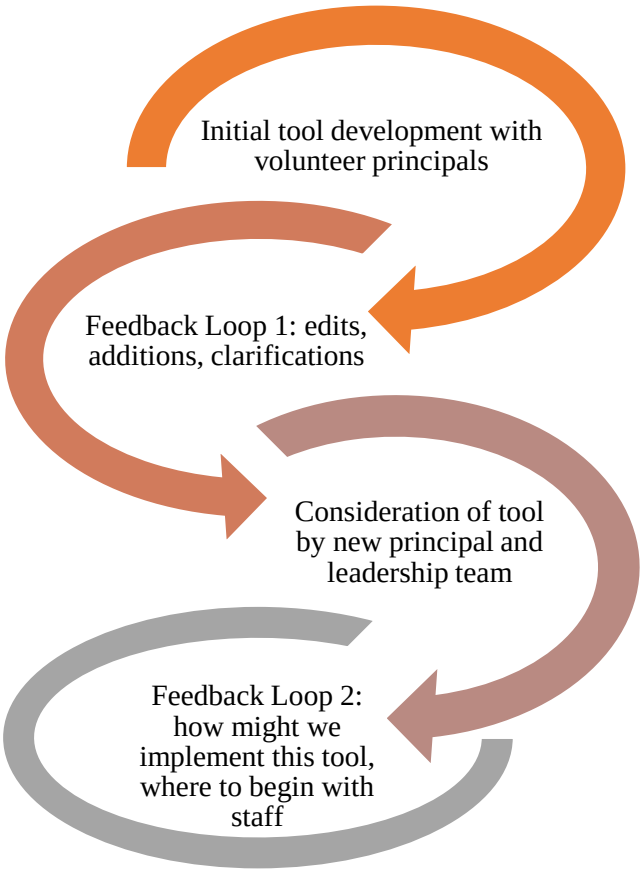


***Figure 2*. Description of the feedback loop process.**

Reliability, Validity, Transferability

Reliability in qualitative research refers to the ability of the research study to be repeated over time (Creswell, 2009). Clear and consistent procedures and protocols will be used across all facets of the data collection process. Impact data are standardized, allowing for consistent pre- and post-data collection, while process data flows more freely. Different sources and types of data will be collected, therefore coding naming and definitions will be closely monitored.

Validity refers to the strength of the research study in its ability to measure what it was intended to measure (Creswell, 2009). This term suggests that the research and the resulting intervention did what it was supposed to do. In this study, the measures of validity will be determined by the changes in principals' use of the one-hour PLC time. The pre- and post-survey data from the principals, defining present uses of collaborative time, and then the observations of team leadership meetings where the protocol is adapted and refined, will be evidence of changes in behavior regarding instructional leadership.

For the context of a design study, transferability refers to the extent to which an intervention can potentially be transferred to a different context and result in similar findings (Akker, 1999). To the degree that elementary principals may be unclear on how best to use PLC time to foster collaborative decisions among teachers, the context of my study may be highly transferrable. However, the nature of the elementary school, considering demographics and school size, may ultimately shift the effectiveness of the modules themselves, especially if the school has a low number of English Language Learners and had relatively good scores in early literacy. Furthermore, if transferability applies to elementary schools who do not have PLC time, then effectiveness of these modules will not be applicable. Given this context, I will provide detailed descriptions about the role of the participant researcher and the participating principals, as well as the specific content of the intervention modules. By providing these details, my hope is that future researchers could determine whether the findings can be transferred and if they are applicable.

Rigor, Threats to Rigor, Bias

As an active participant in this design study, there are inherent threats to rigor through bias, which I will have to consider. For instance, my role as Assessment Director may bias my results due to my supervisorial role with the principals. Principals sometimes look to me for direction regarding their data, rather than deeply analyzing the data themselves to identify key elements of effective collaboration. There are strategies for enhancing rigor, including using multiple sources of data, including interviews, observations, and field notes (Creswell, 2009). The uses of multiple sources allow for triangulation of the data, to increase rigor and reduce threats. In addition to the data I collect from participants, I will also record notes after each critical event, which will be reviewed by a critical friend to analyze process dynamics and adjust as needed.

Rigor in action research also relates to bias in that the method of how data are generated and analyzed, and how events are questioned and interpreted through multiple action research cycles, requires that constant reflective processes are in place (Coughlin & Brannick, 2007). The multiple roles of designer, researcher, and actor in this design development study may cause advocacy bias. Advocacy bias occurs when the values of the researcher affect the study or its findings (Stake, 2006). The toolkit I have created is an objective artifact whose accuracy and validity is tested and confirmed by its users, i.e., school principals and teacher

leaders. These users provide the information relevant to tool development and will therefore mitigate threats to rigor.

I have embarked upon this design study with the intent of developing a tool that supports instructional leadership practices in elementary schools. Naturally, I am predisposed to wanting my efforts to be successful, and as such have an undeniable bias. Stake (2006) notes that one of the contributing factors to bias is the researcher's desire to prove that the intervention or phenomena is working. One challenge in the development of this tool is to ensure that I do not misinterpret information provided by the users (principals and teacher leaders) to my advantage. To protect against bias, I have built in safeguards that help me check my assumptions and biases. Actively seeking data and presenting disconfirming information have helped avoid this potential bias (Creswell, 2007). Also, throughout the research process, I reflectively examine how my background as a practitioner has shaped my findings (Creswell, 2007). To further mitigate bias, I not only rely upon the data generated through qualitative data gathering with principals and staff of participating sites, I have also gathered feedback from my participants about coherence, relevance, and ease of use. Lastly, I am keenly aware that this study is the beginning of an investigation into a site-based tool that will aid school leaders and teacher leaders working toward ongoing improvement. While I hope to arrive at an off-the-shelf, ready-to-use tool for schools, I realize that further investigation beyond this study may need to occur.

This design study is an attempt to develop a research-based audit tool, which allows principals and teacher leaders to implement leadership practices which support teacher collaboration within their varying contexts. In this chapter, I outlined the major data collection strategies used to shape the design of my toolkit, as well as the sequence of tool development activities and criteria used for edits, additions, and clarification of the tool itself. In the next chapter, I present my findings from data collection and analysis.

The district in which my study took place is a medium-sized district in Northern California. This researcher has worked with said district's elementary principal Community of Practice (CoP), which is engaged in implementing effective teacher collaborative time, a mandated one-hour event occurring once a week. Over the past several years, the district has actively implemented measures to diversify elementary school offerings. There is now a wide array of options for families to choose, including magnet schools for STEM, art-integrated instruction, dual immersion, and other offerings. While these offerings have gone far in supporting parent-choice interests, they have worked negatively in the principal CoP, where many principals now feel that they have little in common with each other, due to their commitments to maintaining their respective pedagogical models. However, there are several common problems of practice that these principals share. This study has demonstrated how the broader CoP can support the learning of the group and create systems of support at every site, such that principals are not having to solve common problems by themselves, with greater or lesser degrees of success.

The purpose of my study was to develop a toolkit that would be used to support instructional leadership, such that the one-hour of teacher collaborative time would be effective and useful to school stakeholders' engaging in the improvement process. This one-hour collaborative time, known as Early-Release Wednesday, is a time for teachers to come together to discuss their practices, look at student work, and analyze student-generated data, in hopes that this collaboration will result in reflective dialog and discovery, ultimately leading to changes in practice. Principals in this district have implemented this one-hour collaboration time over the course of many years, in varying ways. At some schools, principals and teachers experience confusion for what is supposed to happen in the mandated meeting time to change student outcomes. The toolkit developed from this design study is meant to support instructional leadership in such a way that principals across the CoP will have the resources to support making the most of teacher collaborative time.

The theory of action behind this study was if principals were to engage in a learning process, current effective practices for collaborative teacher time could be captured. From that learning process, principals could identify the strengths of their current practices, which need to be replicated throughout the system, and they could also identify the missing resources needed to make collaborative time effective. Based on what was identified as a strength or a missing resource, a toolkit would be co-constructed by the focus group and this researcher to support the common work needed within the CoP to facilitate more effective collaborative teacher time. Additionally, a process for adapting and iterating the toolkit among sites would lead to a change in current leadership practices, contributing to the CoP as whole.

This design study strove to meet three specific learning outcomes. The first learning outcome was to increase principal knowledge about successful leadership behaviors that result in highly effective collaborative time. The second learning outcome was to develop an iterative process which principals could use to implement the toolkit in ways that supported relevance and coherence, given the varying pedagogical models that exist among elementary schools in the district of study. The third learning outcome was to share the learning with the broader principal group, such that members in the group would begin to see themselves as a

CoP that shares learning and problem solving. The theory of intervention for this study was principals would come to rely upon their own CoP if they were to engage in a toolkit development process that represented their effective practices and shared those practices in ways which facilitated learning from one another.

The first learning outcome aimed to increase the principal CoP knowledge of effective leadership behaviors. Principals who are effective instructional leaders successfully manage teacher and community relationships, capitalize on the leadership of others, and maintain a focus on improving student outcomes. These behaviors have made collaborative teacher time, commonly referred to as Professional Learning Community (PLC) time, effective. The terminology "teacher collaborative time" and "PLCs" are used interchangeably in this study. The toolkit created to support this work has come from various interviews where principals have shared their practices for these behaviors, such that other principals can learn from those who already have good practices in place. After the initial toolkit was designed, the next step was to have another principal and their site leadership team work together to discuss ways the toolkit could be implemented at their site. The discussion of how the tool could be implemented and adapted lead to the second learning outcome.

The second learning outcome of this study was to help principals using the toolkit to shape it in such a way that it could be implemented regardless of the pedagogical model represented at the school. Through a series of feedback loops, leadership teams and their principals could identify places in the toolkit where they would begin, how they might shape the resources in that section for their specific needs, and how they might use the suggestions within the toolkit as a starting place while incorporating the important aspects of the school model or design. These adaptations are part of this study's coding for relevance and coherence.

The final learning outcome addressed that although schools at the elementary level in this district have varied designs and models, the principals all share similar problems of practice. The need to implement PLC time in an effective way that results in improved student outcomes is an example of such a problem of practice. When principals use the toolkit, which was co-created by their peers, they can ask questions of their colleagues, search for meaning in the practices they observe, and become aware of the larger CoP to which they each belong. By using this toolkit to improve PLC time, principals also discover they can learn from one another in ways that benefit their schools and the larger organization.

Findings of this study were based on a purposive sampling of elementary principals bound by their common membership in the district's elementary leadership group (Tongco, 2007) The purposive sampling of a small group of elementary principals was significant because their CoP was most informative to my theory of action. Purposeful sampling of small groups can most effectively inform local meaning and contextual factors within a particular setting, such as an elementary school (Tongco, 2007). Small sampling can also be effective at uncovering unique meanings within the group. In this study, small purposive sampling provided a perspective from a typical group of elementary principals, which supports drawing conclusions about the broader CoP, better than other sampling methods. Small sampling has some drawbacks, in that sometimes conclusions cannot be generalized across groups. However, in this case, a purposive sampling of elementary principals was beneficial because

they are a specialized group of leaders with challenges and beliefs which make them different from other leaders in the organization.

Because of these realities, this study does not mean to generalize across larger populations; rather, it was meant to illuminate the practices for supporting teacher collaborative structures at the elementary level, within a mandated one-hour time-period, in a medium-sized school district in northern California. Findings in this study have shown to be prototypical in that most research on school improvement takes place in large urban settings. While no assumptions can be made that these findings may be generalizable, outcomes may lend themselves to further research on implementing collaborative time among elementary school teacher communities.

Early Release Wednesday Toolkit

The Early Release Wednesday Toolkit, is an electronic document (downloaded to hard-copy for the Appendix), with links to significant areas of needed support, as emerged from the semi-structured interviews with the principal participants of this study. The toolkit begins with a letter to the user, and proceeds to explain the design of the toolkit itself. There are sections which review my research and inform the user of the important findings of my study, for example; all the principals I interviewed used a guiding resource for their PLC time, had structures for distributing the leadership among teachers involved in the PLCs, and would participate in the PLCs as a discussion facilitator or to answer questions as they emerged. There are sections which support the nature of PLCs by explaining roles and responsibilities of members, the importance of distributed leadership and how a principal might implement it, and working with and through teacher conflict. A particularly important section, outlines the differences between teams and PLCs. Teams are characterized by the work they do, specifically to capitalize on each other's strengths to decrease workload and simplify complicated implementations. Teams support current practices, seeking ways to streamline them for maximum efficiency. PLCs are characterized by their commitment to inquiry into their own practices, using student-generated data, for improving student outcomes. PLC members share a common problem and are committed to a common solution for which they all participate equally in processes for improvement.

After the narrative sections of the toolkit, I have assembled an appendix with multiple gathered resources for supporting PLC implementation. Each section of the narrative portions of the toolkit, contains links to the corresponding sections of support in the appendix. In this fashion, a user can read the toolkit sections they have the greatest interest in, and go directly to those supports in the toolkit, rather than having to read the toolkit cover to cover. This element of the design is what makes the resource a toolkit. The flexibility of the toolkit to be used in whole or in parts, is its greatest strength. Principals often attend professional learning opportunities where they learn about PLCs and what to do as a leader to implement them, but when the learning event is over, there isn't much follow up to support laying the actual groundwork for PLCs. This was a reality in the district of study and part of what led the researcher to select a PLC toolkit to address this common problem of practice. A toolkit can bridge the gap between formalized professional learning about PLCs, and the implementation of them, at the school site.

Organization and Data Analysis

In this study, I engaged a purposive sample of elementary principals in a tool development process that would activate their current effective practices for teacher collaborative time and result in a toolkit that other principals could use to achieve the same effectiveness. The learning outcomes I sought to achieve while co-developing a toolkit were: 1) Increase knowledge and skills for principal behaviors and practices which lend themselves to implementing successful teacher collaborative time; 2) Identify an adaptive implementation process by which any principal could use a developed protocol for establishing effective teacher collaborative time, regardless of current school models or organizational structures; and 3) Develop the elementary principal CoP.

In this chapter, I have described findings organized around these three learning outcomes, beginning with a discussion of process data, followed by impact data. Process data were collected from focal principals and through observations of PLC time at their sites. These participants engaged in the tool development process which included; analysis of research, session transcripts, feedback loops, and field notes. Data were gathered to inform the tool development process to make informed adjustments along the way. To inform impact data, I used semi-structured interviews with an implementing principal and the site's leadership team to discuss how the tool could be implemented and adapted to meet the needs of the school site. Finally, I developed an online course for the entire principal community, from which I extracted the results of the initial principal participant group to establish how the toolkit supported their work implementing highly effective PLCs. This course included a questionnaire at the end, which provided additional impact data.

Process data analysis.

Process data were collected in this study for two purposes: first, to gather the leadership practices which help to support effective teacher collaborative time, and second, to witness from PLCs themselves what happens during that time such that a toolkit could be developed. Process data were used to inform three learning outcomes of the design: (1) to develop the instructional leadership skills of elementary principals: (2) to develop an adaptive and iterative process for implementing the toolkit: and (3) to develop the principal CoP by demonstrating how they can learn from each other through the co-construction process.

The first learning outcome, to increase elementary principals' skills for instructional leadership, happened because of examining practices currently in place for supporting teacher collaboration, and addressed the Relevance metrics used in the coding of this study. Relevance is defined here as those practices which are common to all elementary principals, as is necessary to operate an elementary school in the district of study. By engaging in a self-study of leadership practices for facilitating PLC time, principals were also investigating their own roles in supporting teachers in changing instructional practices. By studying the common behaviors and skills of principals who have implemented quality PLC time, principals also learn which leadership practices are effective throughout the larger CoP.

The second learning outcome, developing an iterative process for implementation of the toolkit, addressed the Coherence metrics used to code the data. Coherence for this study refers to the ways in which schools use professional learning to address the specific instructional designs of the school site. Elementary schools in the district of study have varied instructional designs engineered to attract parent participation through school choice. By tailoring the

toolkit to the needs of a site, principals expanded the function of the toolkit from a simple guide for PLC time to a key support a site would need to address teacher collaboration.

The third learning outcome, principals learning from one another, was an important goal for this study because principals' work is expansive and complex. It is important in such a work context that colleagues with common problems of practice recognize the degrees to which they can increase the efficiency of their work by replicating the best practices which exist among them. This study aimed to help elementary principals recognize how they might better improve their work by maximizing their learning from one another.

Process data sources.

Process data were informed by four data sets: 1) research, 2) participant principal semi-structured interviews, 3) observation field notes, and 4) feedback loops. Participant interviews and field notes were analyzed using a tally coding system to measure relevancy and coherence, and to track the tool development process. To gain further information for additions or edits, feedback loops occurred at each phase of tool development. The importance of each data set to the tool development process and change process are presented below.

1) Research: Three main bodies of research were used to inform the PLC Toolkit development process: instructional leadership, collaborative leadership, and data-informed practices. I also incorporated research in the areas of interprofessional development and models of teacher professional development while developing this dissertation and in working with my advisor. The literature on instructional leadership was used to inform what leadership practices support learning of teachers such that teaching practices can be changed and improved. Because principals have an indirect, yet measurable, impact on student achievement, it was essential to the efficacy of the toolkit that those practices be included. The literature on collaborative leadership was used to inform what principals can do to build environments where teachers feel comfortable enough to share their practices and examine their teaching, and to capitalize on the leadership of others, not just the principals. Collaborative leadership literature was a necessary component of the toolkit because there are specific actions a leader can do to create a collaborative climate at a school site. Moreover, because leadership can be found in many places, not just from the formal leader of the site, this body of literature informs principals how they might leverage additional resources toward the improvement process. Additionally, because teacher collaborative time in the district of study was specifically designed to allow teachers to review student-generated data, it was necessary for the toolkit to include those leadership practices that support teacher learning about data-informed decision making. Finally, interprofessional development research supported my understanding of how people working in a system at various levels and with different responsibilities can all benefit from common learning opportunities, like the course I developed for introducing the toolkit to all principals and their leadership teams. Learning together through a social-constructivist approach has shown workers at different levels in a system develop a common language for identifying problems and developing problem-solving strategies that are germane to everyone in the system. Teacher professional development research helped me identify my work as a community of practice (CoP) model, which differs from more standard forms of professional development, where a single speaker addresses a large group of people, who are then supposed to take what was said and use it in some way in their work. With a CoP approach, the learning of the professionals is central to developing successful strategies within the context of their own work environments. As opposed to listening to a lecture and pulling out useful

information, the standard for professional development, in a CoP model, action research is the learning modality, where experiences and insights shape changes in practice that follow to improve the overall organization.

2) Session Transcripts: Session transcripts included the voice and conversations of the participant principals. Their semi-structured interviews provided the basis of the transcripts. These transcripts were used initially in the production of the PLC Toolkit. They were also a source for ongoing edits and additions within the course of two feedback loops. In the first feedback loop, transcripts were used to gather the necessary pieces of the toolkit itself; in the second, they served as a source of feedback for revision, once the toolkit was in draft form. Transcripts also provided rich detail to data analysis relative to the metrics used in this study, relevancy and coherence, which emerged upon the review of the participant interview data. Within the goal of this study, to create toolkit, was the learning outcome of improving the principal CoP through a change process; thus, transcripts provided the insights into what practices were common among principals with effective PLC time and what practices were program specific.

3) Field Notes: The researcher drafted field notes to document the activities of teacher collaborative time. The field notes revealed to what degree teachers' activities reflected their leadership's intentions for collaborative time. Field notes captured descriptions of activities, reflections on occurrences, notes on emerging questions, and documentation of future actions.

4) Feedback Loops: Feedback loops were gathered in two places. The first was after the initial draft of the toolkit was presented to the participant principals as a means of making additions and edits based on their conceptions of what would be valuable to add or change. The second was after the implementing principal and leadership team discussed the tool for adoption purposes. The second round of feedback was used to place final edits to the toolkit before presenting the entire toolkit to the larger principal CoP.

Combined, these process data sources informed the design study. In the following section, I have described findings related to each of the three learning outcomes of this study.

Learning Outcome 1: Promote knowledge and skills for instructional leadership (Process Data).

The tool development process was meant to engage principals in a reflective self-study, which would improve their knowledge and skills for instructional leadership. In this study, the impetus for new knowledge and skills came through the feedback loops, which led the revisions of the tool. As principals reviewed the toolkit that was created from their initial semi-structured interviews, they began to recognize areas the toolkit supported that were difficult for them to implement and for which they needed more resources. The following data reveal the learning of principals for deepening their own instructional leadership.

Reflections on principal areas of growth
• "I realized, as a new principal, I needed a lot of hand-holding [with implementing PLCs]"
• "Not all principals come from a place where there is a designated time for teachers to collaborate. What if you have to figure out how to make PLCs happen without negotiated time to do it in?"
• "I would create rubric, to determine where we are and if there has been improvement"
• "Something missing is examples of Norms or ways for teachers to agree to norms.
New understandings for instructional leadership knowledge and skills
• "The toolkit should take you through a step-by-step process for developing strong PLCs; the purpose of a PLC, why we look at data, and how to be collaborative. If I look at this as a new principal, this toolkit does take me through the process, step by step."
• "The toolkit gives principals a place to start, whether they have teacher designated time or not. It's a toolkit, you can start anywhere in the document; schedules, agendas, establishing norms. Those behaviors don't require a designated time to execute, you just have to know how to develop them."
• "The toolkit is a way of processing a new leadership team and introducing new ways of handling things and improving things."
• "Getting teachers to agree to norms isn't the hard part, it's getting teachers to monitor when norms get broken, that's hard. The toolkit has some guidelines for respectful process facilitation that would support the difficult task of keeping commitments."

In the following section, I have described the activities the principals participated in, for the purposes of giving more context to these results (Table 4.1). These sessions were meant to capture the change process principals went through, punctuated by multiple opportunities for feedback. This iterative design allowed principals to bring up their leadership needs for PLC implementation, which were considered throughout the tool-development process.

Table 4.1

Iterative Stages and Focus for Each Session

Session	Activity	Session Focus
Session 1 ***Baseline***	Participant-principal interviews	Gather current practices for implementing successful PLCs, based on principal's experiences with successes, challenges, and important principal learning, which support effective PLCs.
Session 2 ***Baseline***	PLC Observations	Gather field notes on the range of activities occurring during PLC time.
Session 3 ***Identify areas of need***	Feedback Loop 1	A draft toolkit will be presented to principals. Principal feedback about additions and edits will be collected.
Session 4 ***Expanding areas of growth***	Presentation to Principal CoP	Participant-principals share the process for tool development with the larger CoP. Implementing principal and leadership team are established.
Session 5 ***Implementation Plan***	Leadership team and principal develop adaptive implementation plan	Leadership team and principal review and discuss the toolkit. Determinations over where to begin and what changes might be made to better customize the resource to the site are determined.
Session 6 **Understanding Implementation**	Feedback Loop 2	Leadership team and principal discuss the process for implementing the toolkit. A process for iterative adaptation of the design for implementation purposes is established.
Session 7 **Developing Community of Practice**	Presentation to CoP	Volunteer principals discuss the toolkit development process, sharing insights on the ways all principals can learn from one another, better developing the CoP.

The researcher anticipated that observations and insights generated by this design study and summarized in this chapter would encourage multiple professional learning opportunities. In this way, learning acquired by participating principals would not be lost; instead, knowledge acquired by principals and the larger CoP would be put into practice. To fulfill this objective, lessons acquired during sessions would be captured in the form of a toolkit to serve as a guide to other principals.

Session 1 – Principal Interviews.

Session one served as a baseline for current leadership practices which support effective PLCs. I call it baseline because it was the first round of data gathering from the participant principals who would co-construct the toolkit with the researcher. Subsequent sessions lent to developing deeper understanding of the leadership practices needed to sustain PLCs, through additional rounds of feedback. However, this first session established the foundation for how leaders in the district of studied, conducted, and supported teacher collaborative time.

In session one, I visited principals at their school sites, by appointment. In some cases, I met with only the principal; in others, additional administrators were available. I asked 7 questions:

8. *What typically happens on Early-Release Wednesdays?*

9. *What is your role in supporting PLC time?*

10. *What resources do you use to help conduct PLC time?*

11. *What challenges have you had implementing this time?*

12. *How does the level of teacher-expertise affect the way PLC time is implemented or what you do during the PLC time?*

13. *To what extent have relations with the external community contributed to the effectiveness of PLC time?*

14. *What would you want from a PLC toolkit if you had one?*

From Question One, I learned that there are many activities that occur during PLC time. Principals shared that their PLC time is typically directed, rather than self-selected by teachers. PLCs are structured with agendas and minutes, which are shared with the principal and peers. PLC time differs at different points in the month. Sometimes outside specialists deliver small chunks of professional development, while at other times the instructional coach, and/or other teachers, lead the professional learning. Sometimes teachers review student-generated data and do goal-setting for specific improvement.

Question Two revealed that principals have varying roles during teacher collaborative time. At some sites, the principals remained peripheral to the teacher collaborative process, engaging instead in other administrative activities, such as parent meetings or meetings with other staff, such as special education staff or instructional assistants. When principals were directly engaged in PLC time, their role was supportive. Sometimes they acted as facilitator of the agenda or as notetaker of the minutes. Occasionally, in this capacity, they would answer questions which were directed at them. No principal overtly managed or directed the content

of the PLC's work, although they may have given direction to support the purpose of the time; e.g., data analysis of writing, professional development, or goal-setting.

Question Three revealed the diversity of resources principals use to support PLCs, and detailed the varying instructional approaches of the different sites. Some principals frequently used outside specialists to support learning. This was particularly true at a dual-immersion site, where most of the teachers are foreign-born and new to the teaching profession. Some principals allocated additional time and training to teacher collaboration because they were a school receiving additional grant money, or they were a charter.

Question Four addressed the kinds of challenges principals face implementing effective teacher collaborative time. There arose many common challenges. All principals shared having difficulty with keeping teachers focused on learning, as learning is the primary function of a PLC. Principals shared common challenges with staff who were disrespectful of the collaborative process, who would frequently break norms, or who simply did not want to participate in the improvement process. All principals shared that teacher turn-over is a problem for maintaining effective PLCs, as any new staff member needs to be included and educated in the school's culture and practices. This acculturation process happens through intentional mentoring by other teachers, and not by accident in a PLC. So, it falls to the principal to plan and make time for this additional support.

Question Five addressed teacher expertise. All principals shared that level of expertise of the teachers in a PLC affects the ways the PLC functions. Principals shared that new teachers can often feel excluded when more veteran teachers talk about their practices. Some teachers are not comfortable with data analysis, and they will not contribute to a PLC for fear of their novice abilities being revealed. Of interesting note, however, was that all principals identified that there is much to gain from reconciling the differences between new and more veteran teachers in a PLC. Having just left teacher preparation programs, new teachers often have cutting-edge knowledge of standards and theory, which veteran teachers could learn from and around which they might improve.

Question Six was more difficult for principals to answer, as there is often very little space for the outside community in their PLC time. However, community involvement absolutely sets the tone for the elementary principals' contexts, since so many of the elementary schools were formed to advance parent choice. Schools which are magnet, charter, or grant-funded have additional resources for expanding PLC time and training for teachers. These opportunities would not have been possible if not for the participation of the community. So, indirectly, community involvement in the PLCs is evident.

Finally, Question Seven echoed what principals stated in earlier questions. All principals stated there needed to be a guide or reference for implementing PLCs. The most common reference made was to Robert and Rebecca DuFour's *Learning by Doing*.[i] All principals agreed that there needs to be some sort of support for conflict resolution for PLCs experiencing turmoil. Principals also suggested that any toolkit have a rich appendix, where there were many examples of PLC schedules, agendas, forms, norming guides, and other structural supports.

What emerged from reviewing the interview data was a pattern of supports and resources that principals used to determine relevance and coherence. Relevance was supports for

facilitating the implementation of initiatives, or for solving problems, that were common to all elementary school principals, while coherence was supports for implementing those aspects of pedagogical practices indicative of the schools' instructional design models. Table 4.2 demonstrates some examples of the responses of the principals across these two dimensions, while Figure 4.1 shows the prevalence of each of the indicators.

Table 4.2

Examples of Relevance and Coherence

Indicator	*Transcript*	*Event/Issue*
Relevance	• *"There's a task, project or data to look at."* • *"The structure time has a template which includes data, student SMART goals, units, etc."* • *"On Early-Release Wednesday, we alternate; one week we look at literacy data, and one week we focus on academic vocabulary."* • *"At our school, it all depends on the Wednesday. When we have staff meetings with grade level collaboration time, most of that time is spent on data analysis."*	What typically happens on an Early-Release Wednesday? *Data Analysis*
	• *"Staff meetings and trainings can happen. Professional learning are the goals for those days."* • *"We rotate between leadership days, one of the days is a PD day, one is for a staff meeting."* • *"Every single Wednesday, we have PD, then we have PLC time."*	What typically happens on an Early-Release Wednesday? *Professional Development*
	• *"Staff turnover is a big challenge. It's about building relationships and culture so when people leave you have to rebuild culture and commitments."* • *"Growth has been a challenge. As our school gets bigger, how we onboard new teachers to the culture without losing time in our improvement efforts."*	What challenges have you had implementing this time? *Teacher Turn-Over*
Coherence	• *"Project tuning, we use rubrics for projects and culture from [vendor]."* • *"We don't have any additional resources. We use our district-issued devices, and focus on the data from district-level tests"* • *"Every teacher does a book talk on* Learning by Doing. *Every year I take a group of teachers to see the DuFour's."* • *"We use Data Teams and Decision-Making for Results. Teachers are collecting data and charting it on a specific standard."* • *"We've tapped our Science Specialist, to help in a variety of ways; PD for NexGen science standards, as well as our own magnet resources to support other frameworks and standards."*	What resources do you use to help conduct PLC time?

Table 4.2 represents a collection or sample of some of the transcript responses captured in the principal interviews. Relevance emerged in the transcripts as comments made that represented the same kinds of activities regardless of instructional model. I coded those comments as comments to relevance because they emerged almost verbatim across most interviews. If the principal made no comment on the topic, it was not coded. I coded comments on coherence as those comments which related to activities or issues principals had that were related specifically to their instructional models. So, while some principals may have made similar coherence remarks, for example, they used additional funding to support more planning time or release time, the support itself was only available because of the model of the school.

Relevancy				*Coherence*		
What Happens on ER Wednesdays?				*What Resources Do You Utilize for ER Wednesday?*		
PD		////		Specialists		/
Data Analysis		////		Additional Funds for Planning		///
Staff Mtgs.		//		Additional Funds for Models		///
Planning		///		Total Coherence Responses		7
What is Your Role on ER Wednesdays?						
Listen		///				
Facilitate		///				
Other Mtgs.		/				
What are the Challenges to Implementing ER Wednesdays?						
Teacher Resistance		///				
Turn-over		///				
Following Norms/Keeping Commitments		//				
Total Relevancy Responses		28				

***Figure 4.1*. Prevalence of relevancy and coherence from principal interviews**

Figure 4.1 represents those interview questions where principals had similar, to nearly identical, comments. These questions were: 1) What happens on Early-Release (ER) Wednesdays? 2) What is your role on ER Wednesday? 3) What resources do you utilize for ER Wednesday? 4)What are the challenges to implementing ER Wednesdays?

While there were seven questions total, I found that comments for questions 5 (How does teacher-expertise affect PLC time?), 6 (To what extent have external community relations contributed to the effectiveness of PLC time?), and 7 (What would you want from a PLC toolkit if you had one?); either repeated statements from the previous questions in slightly different ways, or they were unique to the principal and had no comparison value. Therefore, no clear connections to relevance or coherence could be established in the answers to the last three questions.

The results from Table 4.2 and Figure 4.1 indicated interesting findings for the principal CoP. First, both the examples of text from the transcripts and the coding chart indicated there were many more instances of relevance, measures of activities PLCs had in common, than there were of coherence, that is specific implementations related to instructional model. The data indicated that elementary principals in the district of study have far more in common than not in their work to implement highly-effective teacher collaborative time. This further suggests they have more to gain from working together to solve common problems related to PLC time, and that a toolkit which captured some of the practices that have already been proven effective, would be a useful tool in these endeavors.

Session 2 – PLC Observations.

The second session involved the researcher visiting the PLC meetings of the school sites of the principals I interviewed, to see what PLC activities were, given what the principals stated happened during PLC time. The principals commonly stated that during PLC time, teachers engaged in professional development, data analysis, planning, and staff meetings. (These activities are listed in order of frequency.) When I made appointments with staff to come to their PLC meetings, most staff were conscious of the fact that I was gathering data for what teachers did during PLC time. To that end, teachers wanted me to see their work, so I was invited to PLC meetings where teachers were gathered to have common discussions centered on their work. I did not see instances of professional development wherein a presenter of some kind was working with teachers to strengthen instructional knowledge, or more formal professional development (Kyndt et al., 2016). However, I did see informal professional development, where teachers were learning about student performance and needed instructional shifts based on the work or data they were reviewing. I witnessed many conversations, which were both instructional in nature and which were centered on students and their needs. There were also several instances where teachers engaged in goal-setting for specific data indicators. I also observed PLC organizational structures, where participants were tasked with taking notes from the meeting, to reflect on previous work in the next meeting and to track the progress of the PLC over time. Figure 4.2 details the observations of PLC time.

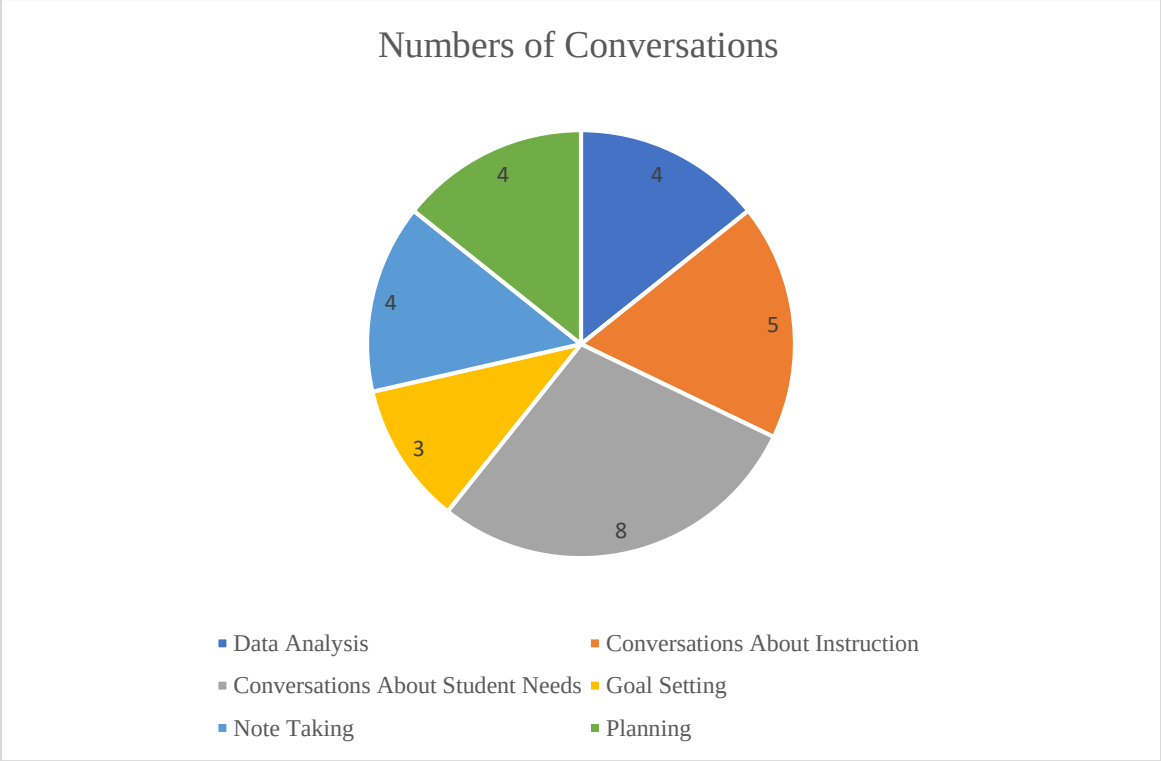


***Figure 4.2*. Analysis of PLC activities**

Figure 4.2 suggests that during PLCs, teachers spent most of their time discussing the needs of the students. These discussions varied from what the student needed instructionally to supports for behavior, communication with the home, or something related. After student-centered conversations, teachers spent the most time talking about their instruction. Instructional conversations ranged from specific programs and curriculum to strategies for learning and variations of those strategies from one classroom to the next. Overall, the priorities for teachers as demonstrated in these data, suggest that the most important use of PLC time was to discuss instruction and students' needs, for teachers to be able to assist one another with common problems for each.

The chart also suggests that teachers spent a relatively equal amount of time on data analysis, note-taking, and planning. Data analysis varied from looking at test data to samples of student writing to reviewing student presentations at an assembly. Note-taking occurred most frequently near the end of the meeting in review of what was accomplished that day such that next steps could be determined. Planning included examples of preparations for parent visits, upcoming assemblies, and test administration.

Finally, the least amount of time during the PLCs was spent on goal-setting. Some sites implemented specific models for using data (see Table 4.2), which called for the specific application of SMART Goals (specific, measurable, agreed upon, realistic, time-bound goals*).* During these PLCs, time for goal-setting occurred after review of student-generated data, where the goals were established for what was most appropriate given the data. The lower frequency of goal-setting in the field notes suggests that PLCs used goal-setting when they were exposed to a schoolwide implementation for PLC structures, which involved goal-setting. In other words, goal-setting occurs in PLCs when teachers are trained to set goals explicitly because of additional supports for instructional models at the sites. Goal-setting does not seem to occur on its own, without these supports.

Session 3 – Feedback Loop 1.

From the interviews I collected, I developed a draft toolkit. The draft contained all the resources and information the principals shared with me, as well as those that I could gather from their suggestions. Once assembled, I brought the principals together to review what had been produced. From their feedback, I could make edits and expand the resources. This first feedback loop was important to the additions to the toolkit because principals could see, based on what they had already contributed, what was missing and what they had initially overlooked. I considered this reflective knowledge an important data point for the process of this study, since it marked the growth principals made from their initial input into the toolkit to a review of what were still ongoing challenges for them; they knew some additional supports would be beneficial. I realized a third indicator, ease of use, in addition to relevance and coherence, once I reviewed the data from the first feedback loop. Table 4.3 shows the feedback as it relates to each of the indicators.

Table 4.3

Feedback Loop #1

Indicator	Comment	Edit/Action
Relevance	*"Something missing is examples of Norms or ways for teachers to agree to norms."*	Resource added for creating and enforcing norms. Contributes to relevance, as this interest was expressed of all principals irrespective of model.
	"An example of an agenda, that talks about the difference between collaboration versus co-BLAB-oration, because PLC time is not planning time, it's not prep time, you're supposed to be working strategically toward a goal."	Added a section to the toolkit explaining the difference between "teamwork" and "PLCs" – many sites struggle with the differences of a *learning community* in whatever model teachers are trying to implement.
Coherence	*"I would create some sort of PLC rubric to see if we were following the model purpose for collaboration."*	Inserted a sample PLC rubric in the Appendix – disclaimer that it is only a sample, given the different activities PLCs may engage in, given the instructional model.
	"What is the definition (and clarifications between) mission and vision? How do you develop one? How do you create a Mission/Vision Statement?"	Added definitions for Mission and Vision for coherence, since each can vary given the instructional model of the school.
Ease of Use	*"If it is a true toolkit, you can use parts of it or all of it – your choice."*	Reorganized chapters into a Table of Contents with links which allow the user to click on any section or go straight to the Appendix.
	"[The toolkit] should set the stage for something that isn't clear. You need a starting place."	Added a narrative at the beginning of the toolkit to introduce it to the reader, with recommendations for its potential uses.
	"As a new principal, I needed hand-holding. If you don't start out with a PLC the right way, the purpose, why we look at data, being collaborative, it's very hard to implement good practices later."	Added a definition of PLCs at the very beginning of the toolkit to establish what the purpose is. Included a link to the Appendix where supports for establishing a PLC, in this definition.

Process data summary.

The process data for this study reveal some important findings. First, that elementary principal's work in this district is marked by challenges which are common to the larger CoP far more often than are problems unique to site conditions. Therefore, principals can go a long way to increasing their own strengths as leaders by learning from one another than by being insular about their site-specific implementations. Further, field notes indicate the elementary PLCs at the participant schools, are engaged in the work of examining student outcomes and reflecting on practices. This is significant, because PLC time could potentially be used in any number of ways if the site staff and leader are not sure of the purpose for such time. This fact suggests that the participants who initially contributed to the toolkit understand how best to leverage teacher collaborative time, meaning their contributions to the toolkit have a good likelihood of supporting the successful use of PLC time at implementing sites.

Impact data analysis.

Impact data presented an opportunity to examine whether the design challenges of this study have been met. In this study, the design challenge was to assess the value and effectiveness of the toolkit. Specifically, the impact data were meant to measure if the toolkit development process led to 1) a toolkit which supports the work of relevance, that is, work common to all principals; 2) a toolkit which supports the work of coherence, that is work specific to supporting site structures and implementations; and 3) a toolkit that is easy to use, such that implementing and adapting for site-related purposes could be done efficiently. The data collected from the final feedback loop and from the online course feedback questionnaire were the sources of impact data for this study.

In this section, I have presented the sequence of events that comprise impact data. Each data source is described and its purpose explained, beginning with explanations and analyses of the impact data sources. This section concludes with the findings on tool effectiveness.

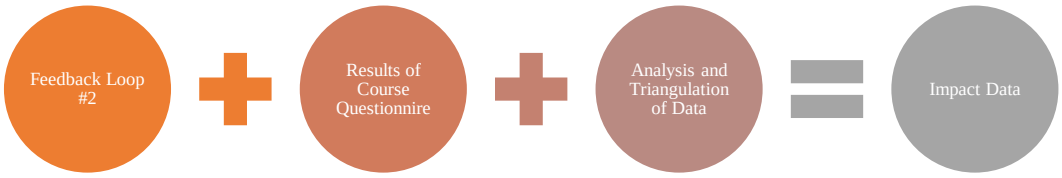


***Figure 4.3*. Impact data sequence of events**

Impact data sources.

Feedback Loop #2

Impact data were collected in two ways. First, I conducted semi-structured interviews with the implementing site principal and leadership teams. A summary of the responses to the interview questions is in Table 4.4. The questions for those interviews follow:

1) From the perspective of a Leadership Team, who would implement this toolkit with a principal, where might you begin, and why?

2) What areas of the toolkit do you find confusing or need further explanation?

3) From an implementation standpoint, are there elements that need to be added to this toolkit?

4) Do you have any other information you would like to share?

Question One was meant to support the implementation process and to give some insight into how the toolkit might be adapted to suit site-specific needs. The responses to Question One included a collaborative approach to implementation. Trends in the responses to this question demonstrated a desire to capture group interests for what the needs of the site are, and where in the toolkit those needs can be best addressed. This question also got to the element of prioritization, since respondents must be able to synthesize the site needs to those that are most pressing and those, if addressed, will make the biggest impact on the system.

Question Two was meant to clarify if there were parts of the toolkit that still needed to be refined, even after initial edits and additions. What was interesting about the responses to Question Two was that additional edits were not identified so much as additional understanding was needed for the actual definition of a PLC. In the toolkit, I spend some time discussing the differences between a PLC and teamwork. The differences are marked by the learning of the professionals in a PLC, whereas when teachers collaborate for teamwork, a divide and conquer mentality prevails, where learning gives way to streamlining of processes and workload. When teachers behave as a team, their work often supports current practices. When teachers behave as a PLC, their work focus is the evolve and change practice.

Question Three was meant to identify what elements in the toolkit supported the adaptation process to fit site needs, and if there were points that could be added to support those efforts further. The implementing leadership team all believed that adaption would occur using the toolkit itself, and therefore would make the toolkit a living document to be shaped by its users. In other words, there was not anything specific to add because the nature of the adaptation process relies upon the needs and insights of the users, not the author.

Question Four revealed no impact data per se, but validated the importance of the toolkit in supporting PLC processes.

Table 4.4

Analysis of Feedback Loop #2

Question	Feedback	Interpretation
From the perspective of a Leadership Team, who would implement this toolkit with a principal, where might you begin, and why?	*"Begin with the Getting Started section. It's a good place for an overview, and begins the conversation for the whole group."* *"I would begin by finding out from the team, what each of the areas meant to each person, and how that would translate to the larger community."*	Implementation of this toolkit should be a collaborative process where needs are assessed and interests are shared for how best to proceed.
What areas of the toolkit do you find confusing or need further explanation?	*"Explaining the difference between PLC and teamwork needs to be clearer. Collaboration itself is not necessarily PLC time."*	Added communication and education around what constitutes a PLC is needed, and why the learning and change process is different from divide and conquer conceptions of teamwork.
From an implementation standpoint, are there elements that need to be added to this toolkit?	*"This toolkit should be a living document, schools could make a copy and add what they use."* *"The areas you covered are a good start, other aspects that come up as PLCs are working would need to be added, to keep the work evolving."*	Ultimately, the adaptive process for this toolkit comes when implementing it. It cannot be known in advance what PLCs will need to shape, until they begin the work of implementation.

Online Course Questionnaire.

In the district I studied, I also play a role in leadership professional learning. My focus for this study was with the elementary principals, but as a district leader myself, I participate in professional learning work with all the principals. It was fortunate for the timing of this study that I could develop an online course for my toolkit, which coincided with the interests of our other district-level stakeholders in supporting principals in shaping their teachers' professional development opportunities. Specifically, the district impetus is on leaders creating effective learning for teachers during the Early-Release Wednesday time. To that end, I used my toolkit as a way of educating all site leaders about the role of the PLC and how collaborative time could be implemented in ways that lead to improved student outcomes. I made sure to impress upon secondary leaders that my findings were meant to be informative to them, if not necessarily indicative of, secondary PLC practices. The following data reveal the learning of the participants of my study, which I extracted from the feedback of all the principals. I specifically shaped my questionnaire to evaluate the learning dimensions of this study as they pertain to the toolkit: relevance, coherence, and ease of use. Each response, except for the commentary, was measured on a five-point Likert Scale, where 1 is Not Relevant/Coherent/Easy to Use, and 5 is Very Relevant/Coherent/Easy to use. I will discuss the overall responses of this questionnaire in Chapter 5, when I discuss the implications of this work and how it might be expanded upon. The extracted responses from my participants appear in Figure 4.4.

Relevance	
Relevance is defined as work all principals must do to support PLCs (for example. teacher focus on learning, engage in inquiry to improve practices). Using this definition, how relevant is the NVUSD Toolkit to your work?	5, 4 ,5 ,4 ,5, 5, 5 (Avg. 4.7)
Using the definition of Relevant, how relevant is the toolkit for supporting your Mission?	5, 5, 5, 4, 5, 5, 5 (Avg. 4.8)
Using the definition of Relevant, how relevant is the toolkit for supporting your Vision?	5, 5, 5, 4, 5, 5, 5 (Avg. 4.8)
Using the definition of Relevant, how relevant is this toolkit for supporting your site goal Number 1?	5, 5, 5, 4, 5, 5, 5 (Avg. 4.8)
Using the definition of Relevant, how relevant is this toolkit for supporting your site goal Number 2?	5, 5, 4, 4, 5, 5 (Avg. 4.6)
Using the definition of Relevant, how relevant is this toolkit for supporting your site goal Number 3?	5, 5, 4, 4, 5, 5 (Avg. 4.6)
Using the definition of Relevant, how relevant is this toolkit for supporting your site goal Number 4	5, 5, 4, 4, 5, 5 (Avg. 4.6)
Total Relevance Average Response Value	**4.7**
Coherence	
Coherence is defined as the work principals do to support PLCs for implementing site-specific models or initiatives (for example, Magnet focus, Culturally Relevant Pedagogy, New Tech Model, etc.) Given this definition of Coherence, how coherent is the toolkit for supporting your work?	5, 5, 5, 4, 4, 5 (Avg. 4.6)
Given the definition of Coherent, how coherent is the toolkit for supporting your Mission?	5, 5, 5, 4, 5, 5, 4 (Avg. 4.7)
Given the definition of Coherent, how coherent is the toolkit for supporting your Vision?	5, 5, 5, 4, 5, 5 (Avg. 4.8)
Given the definition of Coherent, how coherent is the toolkit for supporting your SPSA Goal 1?	5, 5, 5, 4, 5, 5, 4 (Avg. 4.8)
Given the definition of Coherent, how coherent is the toolkit for supporting your SPSA Goal 2?	5, 5, 5, 4, 5, ,5, 4 (Avg. 4.8)
Given the definition of Coherent, how coherent is the toolkit for supporting your SPSA Goal 3?	5, 4, 4, 5, 5, 4 (Avg. 4.5)
Given the definition of Coherent, how coherent is the toolkit for supporting your SPSA Goal 4?	5, 5, 4, 4, 5, 5, 4 (Avg. 4.6)
Total Coherence Response Value	**4.68**
Ease of Use	
After exploring the NVUSD Toolkit, what would you consider to be the likelihood that you and/or your Leadership Team would use it, in some manner, in your work next year?	5, 5, 5, 5, 5, 5, 4 (Avg. 4.8)
How easy would you say; the toolkit is to use and navigate?	5, 5, 4, 5, 5, 5, 3 (Avg. 4.6)
Total Ease of Use Response Value	**4.7**
Is there anything you'd like to add, concerns or interests you'd like to express, regarding the NVUSD Toolkit?	*"It's amazing. Use of this toolkit has already begun at our school. We are excited to dig deeper into it next year. We are thinking of sharing it with leadership first."* *"With EC and SA merging, this is the most critical element of structuring a unifying school for success. We are finalizing our mission statement next Friday and the information on Mission, Vision and Goals will help support the process this year and next year. After defining these we will use the toolkit to ensure effective structure of PLC's. Thank you so much!!!!"*
Non-Academic Related Initiatives	

When thinking about non-academic goals, such as improving parent engagement, creating safer learning environments, or supporting student's social-emotional health, would you say this toolkit supports... (check all that apply)	*Relevance - the work all principals do (6 Responses)* *Coherence - the site-specific work a principal does to support initiatives (2 Responses)*

***Figure 4.4*. Impact data from online course questionnaire**

Impact data summary.

The summary of these data has been informative. Principals and their leadership teams have shared that the development of PLCs is a collaborative process, where careful consideration of purpose for the work needs to be given. Through this process, they have learned that adaption and evolution of the PLC work occurs through the experience itself, where iteration leads to change. In this sense, the toolkit development process has led to learning, which implies the work of PLCs is action research-based. The researchers are also units of change, and the learning expands upon itself over time.

Additionally, principals have come to recognize that their work is defined more by their shared problems of practice than by their specific school initiatives. However, they find the toolkit useful for both. Relevance metrics from the online course questionnaire suggest that principals benefit from the structure a toolkit provides for their shared concerns, but that a toolkit might also support the needed scaffolds for carrying out specific initiatives. The difference between relevance and coherence applications of the toolkit was negligible, except where non-academic applications for the toolkit were concerned, where the work of all principals (relevance) was more supported by the toolkit than the work of site-specific implementations (coherence). Finally, principals and their leadership teams found the toolkit mostly easy to use. Final comments supported the toolkit as a needed resource for the leadership work required for facilitating PLCs.

In the next chapter, I will expand upon these results. Discussion and recommendations in Chapter 5 will include connecting this work to the work that could happen in the future to support leadership practices that encourage highly-effective PLCs.

Principals have complex working contexts which demand multiple layers of skills. Research has suggested that principals who use instructional leadership strategies, who establish a mission and a vision for the school, who build trusting relationships with and among staff, and who maintain a results orientation can indirectly, yet measurably, have positive effects on student achievement. One of the ways in which principals can leverage their instructional leadership practice is through the implementation of highly-effective professional learning communities (PLCs). However, there are many leadership challenges associated with the implementation of these teacher collaborative groups. Principals are presented with substantial obstacles to developing highly-effective PLCs, such as dealing with differences in levels of teacher expertise, working through conflict, establishing and maintaining norms, and developing a culture where teachers openly share their practices. For this study, a sample group of elementary school principals was approached to co-create a tool, in collaboration with this author, which presented solutions to the problems identified here. The co-creation of the tool also capitalized upon the principal community of practice (CoP) to facilitate capacity for efficiently implementing PLCs in ways that draw from one another's own best practices. This study reviewed the tool-development process and assessed the degree to which the learning dimensions identified in the Theory of Action were addressed.

In this chapter, I have reviewed and discussed findings of this study, and I have alleged that the theory of action and design of the Early-Release Wednesday Toolkit development process, was comprehensive and rigorous. I have asserted that this process provided a means of raising principal awareness of the value of their own CoP as a resource from which they can learn, as well as to support the complex work they all undertake, despite the varied instructional models and offerings their school. Additionally, the outcome of this process led to a co-constructed toolkit to guide best practices for implementing highly-effective PLCs. In the following section, I have described fundamental elements of this study, acknowledged its limitations, discussed implications for practice, and concluded with recommendations to guide future research. I have concluded this section with my final reflections and thoughts on this design development study.

Summary of Study

This study took place in a mid-sized school district serving approximately 18,000 students in Northern California's wine region. The Early-Release Wednesday Toolkit was co-created with a sample group of elementary principals as a means of capturing leadership practices that were already in place at schools which had had successful implementations of PLCs. The goal of the toolkit was twofold. The first goal was to create a leadership resource for principals to use that would streamline the implementation process by minimizing the need for each principal to define and develop practices for implementing PLCs on their own. The second goal was the work of co-creating the toolkit to build capacity within the principal CoP, such that principals learn from one another about what practices are most effective for the work they all must do to implement common initiatives, like PLCs. Finally, the outcome of the study would be to produce a toolkit that could be adapted and shaped to meet site-specific needs as they relate to PLC processes.

To build the toolkit, six principals were identified, representing the variety of schooling experiences available in the district of study including: dual immersion, STEM, arts-integrated instruction, environmental sciences, tech-infused instruction, and traditional models. Through semi-structured interviews, field notes of observations, and feedback loops, practices which led to highly-effective PLCs were identified and captured. Then, an implementing principal and leadership team engaged in an adaptive process to implement the tool. Feedback from the implementing site leadership team was collected for the impact data, which was used to measure the learning for leadership practices which facilitate PLCs. Finally, an online course was created for introducing the toolkit and gathering the learning from the participating principals. Additionally, principals who were not involved in my study participated in the online course. I have reviewed their feedback in this chapter as a part of my reflections on this work.

Meeting the Design Challenge

The design challenge set forth in this study was to assess the value and effectiveness of the toolkit through specific principal learning dimensions: 1) a toolkit which supports the work of relevance, that is work common to all principals; 2) a toolkit which supports the work of coherence, that is work specific to supporting site structures and implementations; and 3) a toolkit that is easy to use, such that implementing and adapting for site-related purposes could be done efficiently. The findings from this study have suggested it has successfully met each of these dimensions, and furthermore, it was able to build capacity for the principal CoP for learning from one another. Evidence from this study has also suggested that most of all, the work the toolkit best supports for leaders is the work they all have in common, or measures of relevance. Despite the varied work contexts in which principals find themselves, given issues of pedagogy, school size, and demographics, principals in the district of study indicated that they have common leadership challenges, which not only connect them, but also from which they can rely on each other as sources from which to learn. However, the findings have also indicated that the toolkit supports the leadership work principals face in implementing their own site-specific initiatives, or coherence. While the measures of effectiveness for coherence were not as strong as relevance, the variance between them was very little; there was .02 difference in the respondents' average. Even ease-of-use indictors in this study were high, equal with those of relevance, suggesting the toolkit itself not only met the requirements of the learning dimensions, but also that principals have received the toolkit positively and are likely to use it in the future.

Discussion of the Findings Within the Context of the Literature

Learning outcome 1: Increase principal knowledge of instructional leadership practices

One of the goals of this study was to support the learning of principals to implement leadership practices that support highly-effective teacher PLCs. The knowledge base states that principals who have indirect but measurable effects of student achievement do so by: establishing the mission and vision of the school, building a professional culture of trust, setting goals, and monitoring those goals. The toolkit provided specific resources for these practices, and findings have suggested that leaders participating in this work did advance their knowledge of these skills. In Feedback Loop 1, comments from participants for needed clarifications on mission and vision suggested those areas needed support and that the toolkit would be a place from which they could draw; for example, *"What is the definition {and*

clarifications between} mission and vision? How do you develop one? How do you create a Mission/Vision Statement?" The online course questionnaire demonstrated that leaders learned about mission and vision, and they believed the toolkit would support the work of establishing them, as evidenced by their responses to the Likert-scale questions about mission and vision, which showed an average of 4.8 out of 5 that the toolkit would support the work of establishing those elements.

Further evidence that instructional leadership practices could be influenced through the toolkit were supported in findings from the field notes. Central to the work of instructional leadership is building collaborative professional cultures, where teachers share their students' results and their own practices with one another for the purposes of improvement. One of the challenges principals face in the district of study is that there is confusion for what PLC time is supposed to be used for, as well as how collaborative teacher groups are meant to shape instruction. In this ambiguity, teachers may participate in any number of activities during PLC time, which may or may not result in reflection on practices or considerations for instructional improvement. In the participating schools, however, PLC time reflected teachers in discussions of data and student work, of common instructional approaches to learning, and of goal-setting; these are all processes which reflect leadership influence on PLCs which allowed for a collaborative environment. Principals also need support for understanding how building trusting relationships with and among staff sets the stage for the improvement process. Furthermore, feedback from the online course questionnaire regarding support for the Single Plan for Student Achievement (SPSA), specifically Goal 1, *All students graduate from high school college or career ready*, and Goal 2, *Students have equitable access to all programs by eliminating performance gaps*, shows that principals believed the toolkit supported the work of both relevancy and coherence an average of 4.8 out of 5. These goals, while ubiquitous, reflect the focus of the district on improving student outcomes. Implicit in these goals is the understanding that leaders and teachers must work together to assure the goals are accomplished. The course feedback suggested that principals learned about the importance of trust in building collaboration, which aims to improve instruction and understand its importance in supporting PLCs.

Establishing and monitoring goals is the last indicator of instructional leadership that influences student outcomes. The findings from this study have suggested learning about this indicator in the initial work of tool co-development and in the impact data. The field notes reflected that goal setting was a part of PLC time when discussions of student achievement occurred. While the frequency of goal setting was less than other instructional dialog, its existence in PLC time suggests that participating principals recognized the importance of monitoring student progress over time. In response to this finding, I included a section on goal setting in the toolkit and presented that in the online course. The positive feedback from the questionnaire, which includes extensive feedback on SPSA goals, has suggested that there was learning about goal setting and that the toolkit was useful in supporting leadership work to establish and monitor goals.

Learning Outcome 2: develop an iterative and adaptive process for implementation.

The final feedback loop, which occurred as an intervention event for this study and constituted a portion of the impact data, provided the needed information on how the tool could be adapted to best serve diverse site needs. The implementing principal and leadership team

examined the tool and asked themselves what were the most pressing learning needs of teachers at the site. In doing so, the leadership team could identify where in the toolkit they would begin, and how they would move forward with the rest of the staff. In the research, this form of self-study in educational professional learning is relatively new. Historically, teachers have received professional learning from single third-parties, where large groups of teachers would sit in a lecture. The expectation of these events was that listening to outside experts all day would provide needed support from which teachers could then evolve practices.

The notion that educational professionals should assess their own needs and go about a process of self-inquiry to find their own solutions, represents a sea-change in the understanding of professional development. The hallmark of this change, is the focus on the PLC as a mechanism for developing and delivering teacher professional learning. The purpose of the toolkit was to support principals in their work to implement highly-effective PLCs. Feedback from the implementing site suggests that through a collaborative process conducted at the principal and teacher-leader levels, involving some form of needs assessment for professional learning, an adaptive process can occur which guides decision-making for where to begin with the toolkit and how implementation should progress.

Learning Outcome 3: build capacity of the principal CoP through the co-construction o

a tool.

Another outcome of this study was to build the capacity of the principal CoP, such that principals would better learn from one another, making their leadership work more efficient. One of the initial challenges to building this understanding was the diverse instructional models prevalent among the elementary schools in the district of study. In the knowledge base from the medical community, interprofessional development, the professional learning that happens across disciplines and specializations, such that individuals serving the same ends (patient health, in this case) can have a common foundation for their work, enlightens the PLC model of self-study by suggesting that teachers from across a wide array of backgrounds and contexts should come together to share their practices and learn from one another. By learning together, the foundation for their work is built through collaboration, discussion, and social constructivism. In education, teachers from varied backgrounds and experiences coming together to discuss the needs of students is an example of interprofessional development. In this study, the work of PLCs, such as collaborating over data, discussing the instructional shifts necessary to move students forward, and giving feedback to one another on various aspects of classroom instruction, is an example of interprofessional development.

Feedback on the learning dimensions for relevance has suggested that principals did develop an understanding of the commonality of their work. More than any other factor, principals identified relevance, the leadership work they must do to support PLCs that is common at all school sites, as the dominant feature of their jobs. This finding was evident in both the initial Feedback Loop and in the results of the online course questionnaire, suggesting that the toolkit was developed with the understanding of this common work and that implementing principals identified this reality when they experienced the toolkit in the course. Going forward, it will be interesting to see if the experience of constructing the toolkit and learning about its uses will lead principals to similar inquiry processes for supporting their common work.

Study Limitations

One discernable limitation of this study was the usefulness of the toolkit beyond the scope of the district of study. Working within this district, needs were assessed and identified that contributed to the tool-development process. It is not clear whether other districts experience the same struggles with establishing and maintaining highly-effective PLCs. Specific to the challenges of this study was the tension between district interests to expand parent choice among school instructional approaches, and the need for principals to be able to learn from one another when they could benefit from learning about each other's practices. This tension is specific to the local context and may not present similar issues elsewhere.

Additionally, the toolkit was designed to be used by elementary principals. Because this work focused specifically on a small sample of elementary principals who had good practices for facilitating PLCs, it might be difficult to expand upon the uses of the toolkit outside of the elementary context. Secondary schooling presents many layers of complexity where leadership is concerned. Evident in the knowledge base is the issue of "Balkanization" prevalent in secondary schooling environments, where diverse interests of multiple stakeholder's present significant challenges to the improvement process. Cited in this research is the limited ability of instructional leadership skills to leverage change in secondary settings. The tool development process described in this study had at its outset the assumption that the work of PLCs is to change practices. "Balkanization" in secondary schools serves to insulate against change. This reality suggests that a toolkit would not be sufficient for a secondary leader to capitalize on the work of PLCs. Something that addressed the political implications of implementing new initiatives, and which tended to the aversion to new learning and risk-taking which is more prevalent at secondary sites, would be needed to support improvement at the secondary level.

Notwithstanding the limitations discussed above, this study was successful in meeting the design challenge and in so doing, yielded promising results for understanding the value of instructional leadership practices, developing practical iterative processes, and building the capacity of the principal CoP in the improvement process at elementary schools.

Study Strengths and Suggestions for Future Tool Iterations

The benefit and strength of design study research is that it makes explicit and meaningful the connection between research and practice. Particularly beneficial to the success of this design study and the effectiveness of the Early-Release Wednesday Toolkit, in capturing current effective leadership practices for PLCs, was the pairing of research and practice. The intentional integration of research, through a review of the literature, and practice, through interviews, feedback loops, and PLC observations, provided a strong foundation for understanding what supports were necessary to construct a practical tool that would address the obstacles and challenges to implementing effective PLCs.

Initial feedback from impact data has suggested that the toolkit met the needs of principals to implement PLCs. However, there were aspects of the toolkit's design which I believe can be improved upon in future iterations. I have identified two ways in which the toolkit can be improved: first, through an element of personalization at the site, such that individual school cultures can be recognized and allow successful practices to be made replicable in the case of leadership change or teacher turnover; second, by addressing the needs

at secondary sites where PLCs can operate in similar ways as at elementary schools, but additional supports for leadership are given to help facilitate the change process.

The next iteration of the toolkit should allow for individualization to address the cultures which exist at the site. Part of the challenge to implementing PLCs is building trust among staff, such that collaborative processes for sharing practices can be developed. Each site contends with different challenges to building collaborative cultures. It is the work of the principal to get to know what issues undergird school culture and to bring specific remedies for those issues to facilitate ongoing learning. It would be wise for any leader using a resource, such as a toolkit, to capture what work was done to adapt the toolkit to the needs of the site, and to document the thinking behind those decisions, from which future leaders of the site can benefit. In this study, staff turnover was a documented challenge to implementing PLCs. However, teachers are not the only staffers who change schools or retire. Principals will eventually move on from the sites where they serve. The next generation of the Early-Release Wednesday Toolkit should have a leadership reflection, which would introduce the new reader to the toolkit and the best ways to use it.

Another recommendation for future editions of the toolkit would be to create a secondary version. PLCs exist at secondary campuses, but their implementation requires much more structure and thought given all the various needs, such as content and subject area, needs of various departments not limited to academics, and numbers of PLC participants. A secondary toolkit would have to include all the aspects of secondary organizations if it were to support the leadership work for implementing highly-effective PLCs. Chief among the supports a secondary toolkit would require would be the in-depth examination of the political nature of secondary schools as a backdrop for the context in which the PLCs occur. Principals would need leadership support for making change possible in such a highly-charged environment.

Implications for Practice

The results of this study point to considerable implications for educators, at many levels. Given that PLCs are widely implemented but poorly understood, efforts to address this issue can occur throughout a school system. Below, I discuss the significance of this study's findings as they relate to these various levels.

District stakeholders which attempt to implement PLCs as a support to leaders at the site level need to carefully consider the tensions which exist among district-level initiatives and the principals' needs to implement PLCs. In this study, what was revealed was a need by the district to expand parent choice among elementary school offerings. However, this decision worked against the principals' CoP, which needed to unite and learn together when considering the implementation of highly-effective PLCs. Districts create confusion for leaders when competing initiatives interfere with site-level responsibilities for ongoing improvement. Districts need to be able to establish priorities that identify which initiatives have the greatest leverage at the district level, and which will have the greatest impact at the site level. When district-level stakeholders assume their priorities are the same as site priorities, site-level work becomes chaotic. A collaborative process whereby district stakeholders, primarily the superintendent and the board, communicate with principals about the district vision needs to be developed such that principals can give their feedback as to how those visions impact site-level work. Then a more united approach to accomplishing the district vision can be realized.

At the principal level, considerable thought needs to be given to how the principal CoP is best positioned to solve its own problems of practice. This study revealed that there was much to be gained from an inquiry process which examines the work of leaders who have good practices in place. These best practices can then be examined to best deal with the issues of replicability across the system, and to support the work of other principals who have had difficulty implementing similarly effective initiatives, such as PLCs. The impact data for this study suggest that even an initial examination of practice which lends itself to supporting the work of other principals is an effective way to leverage leadership work. Indeed, leaders may very well find that the best resources they have for navigating the complicated landscape that is school leadership are each other.

Policymakers at the heart of school reform might well consider the outcomes of this study as well. PLCs have been touted as one of the best implementations for sites to consider when working toward the improvement of student outcomes. However, when policymakers endeavor to prescribe a remedy for school reform, individual school cultures are negated and a generic approach may prevail. Policymakers would benefit from the data in this study, which suggest that communities of practice, located within the context of the implementation, are best leveraged to support implementation work, whose purpose it is to improve student achievement. Perhaps a better policy approach is to define an Action-Research model for such implementations, which leverages the internal capacity of a district and its leaders in the support of school reform.

Results of the Whole Principal Community on the Online Course

In the district of study, it is common to have meetings three times a year, with site principals and leadership teams, to review school site data and discuss as a large community of professionals what the data mean and what district supports are needed to make it actionable at the site level. These meetings have a component of professional learning in them, which I develop and supervise. It was serendipitous that the impact data gathering portion of my study coincided with our yearly data discussion.

At the meeting, I shared my year-long journey into the world of PLCs with our stakeholders from all thirty schools, representing all grades. Together, all participants read three seminal articles I used for my research, as a sample of the kinds of investigation that was used to develop the toolkit. I explained the intervention activities of my study and took questions from the audience, regarding the co-created toolkit. After an initial introduction and clarifying questions, I had all participants go through an online course introducing the toolkit. The course outlined the research base upon which the toolkit was formed. Participants learned about the various sections and resources, and had some time near the end of the course to peruse the toolkit. Finally, at the end of the day, I asked all participants to respond to a questionnaire which would help me understand the learning which came out of the toolkit development process. I have included the responses from the principal participants involved in my study, in the impact data section of my findings chapter. In Figure 5.1, I present the data from the larger group, representing all schools, regarding how helpful the toolkit is in supporting their district and site goals: 1) All students graduate college and career ready; 2) Equitable access to acceleration and support to close the achievement gap; 3) Instill 21st Century Skills including the 6 Cs [Communication, Collaboration, Critical Thinking, Creativity, Character, and Culture]; and 4) Support Student Healthy Living.

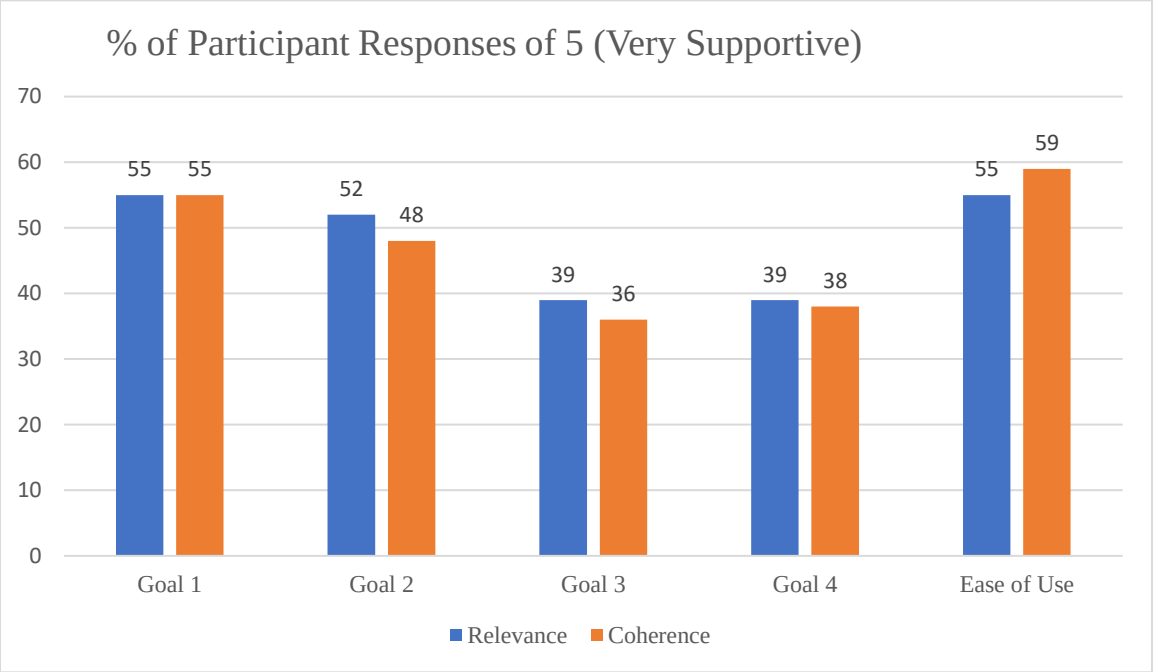


***Figure 5.1*. Whole group responses to online survey questionnaire**

These graphs indicate the participants' responses to the questionnaire. In Chapter 4, I reviewed that relevance is defined as the metric which values the usefulness of the tool for the work that all principals do to implement district initiatives. Coherence is the measure of value of the toolkit for the work done to support specific site implementations. Ease of Use is a metric which relates to the design of the toolkit being easy to implement by leaders and their leadership teams. Participants believed that the toolkit would be easy to implement for both relevant and coherent work, but believed it will be most useful for their site-specific implementations. This is an interesting finding because this study illuminated that principals spend most of their time on relevant tasks, the tasks that are required by all principals related to implementing district initiatives. However, principals found the toolkit to be the most supportive of coherent work around site-specific implementations. Because Goals 1 and 2 are academic goals, participants believed that the toolkit sustains the work of PLCs to supporting student achievement. Goals 3 and 4 are non-academic goals, which may be reviewed in PLCs but which have no academically-measurable trace. Principals believed the toolkit would be useful to supporting the work of PLCs with these goals, but not to the same degree as it would support academic achievement.

I was pleased with these findings. Initially, when asked to develop the professional learning for principals for our data review days, I have some hesitations because our schools are so diverse. The district of study experiences considerable diversity among its elementary schools due to instructional pedagogy differences, but there are huge discrepancies between elementary and secondary levels with issues of size, structures, leadership, and management. Putting together a professional learning opportunity that would be useful for all the various leaders and their teams was indeed a challenge. Again, I drew upon my research into interprofessional development, discussed in Chapter 2 and Chapter 4, to consider how a single professional learning experience can create the space for various stakeholders to find commonality in what they do, identify where their needs are, and identify how they can come together to meet those needs. The questionnaire feedback has suggested that all principals have learned from and find value in a toolkit development process that was co-created with other practitioners. These findings have broader implications for the impact data because they suggest that this design study tapped into a common need across the entire organization. I am excited to see what the new year brings, in terms of requests for professional learning which supports the implementation of the toolkit.

Conclusion

It is significant to the development of principal communities of practice, that I chose to build a toolkit collaboratively with a selected sample of principals. The issues addressed by the toolkit may be common among many leaders, but not in all districts have political pressures to respond to the community been so divisive among educators. The focus on parent choice, in the district of study, surfaced many internal conflicts about serving student needs. In this district, the student population is polarized. Public schools in this district serve middle-class vocal parents, as well as disadvantaged students from non-English speaking homes. Board members and executive leadership have attended to the wishes of vocal parents, by initiating several parent choice options which are not necessarily linked to the needs of struggling students. This presents the CoP with an interesting dichotomy. There is competition among elementary principals, for which schools are getting recognition for their innovative approaches to instruction, projects, and outward parent approval (not to mention, increased

student numbers through open-enrollment). Meanwhile, data reveal that disadvantaged students are not faring well, despite the forward-thinking designs of their schools. Therefore, while principals reflect on all the work they've done to implement choice, they are confronted with the reality that the neediest students have not entirely benefitted from those efforts. This conflict shines a light on leadership in a most critical manner, because it implies something lacking in teaching and learning – the very things the new models were meant to improve.

By co-creating the toolkit with a collective group of principals, participants could identify the ways in which they would benefit from working together. They also saw that, despite their diversity, problems of ongoing improvement are shared problems that can have shared solutions. These data were most evident in the results from the Questionnaire from the online course, in which all principals participated. This learning, transfers directly to the PLCs principals supervise on their campuses, because it implies that the work of a PLC doesn't change just because the instructional model might change. More importantly, it implies that improvement processes require the same kind of work from the professionals involved and that the work is not model-generate or specific. In other words, good practices for improving student outcomes are replicable and scalable regardless of local conditions, if the purposes of professional learning are met. By reimagining their CoP as, one where working together could create effective supports that had the potential to simplify a leader's work, they now have the insights to manage their time together differently – for learning from one another rather than competing against one another.

This design study was an initial exploration into the ways CoPs are best leveraged to solve their own problems. At the elementary level, learning from one another may be the best way principals can consider the scope of their work and maneuver to impact and influence their staffs, using the practices of colleagues who have already had success as a means of moving forward. This study was also a foray into the tool-development process. This process illuminated many ways the principal CoP might consider future iterations of the toolkit, to better shape it in a way that reflects the individual cultures of the school sites themselves, building capacity for transition and turnover.

Additionally, this study served as an impetus for interprofessional learning for all principals across the district. Findings from the whole community of principals have suggested that this design study not only served the needs of the community of practice it was trying to develop among elementary principals, but also struck a chord among secondary leaders who could benefit from an in-depth study of their own PLC structures, and to adapt the toolkit for their purposes. When one embarks upon the journey to complete a doctoral degree, idealism over the worth of one's study is rampant. Then, as the years progress and the true nature of the complexity of such a pursuit is revealed, one soon succumbs to the process and simply hopes the study can be completed. I have learned, from my work, that this study is valuable to all leaders. The resulting toolkit will serve as a springboard for future work addressing PLC structures and supports. In many ways, as a researcher, there is no more significant an outcome.

This study has brought me full circle in my work. For seven years, I worked as an elementary principal. I struggled with the same issues of complexity as my colleagues when working with PLCs. Now, in my district role, I manage and report on their assessment and intervention data. The work that went into this study has revealed the nature of how successful

PLCs can have an impact on student outcomes, and what leaders can do to improve PLCs for that end. It has been enlightening work in many respects because the outcomes of this study aligned with the work I do for the district regarding assessment. I feel proud that I have created a tool that supports our shared work for moving student achievement.

Because my work in the district sits so closely to the improvement process, this study will serve as a guiding force in future discussions with principals. It is my role to reveal data trends and insights with the principal group, but I have had little impact with site operations. Now, the implementation of my toolkit can become a central part of the conversation I am having when presenting data. I will be able to address the supports leaders need to consider when looking at the data for how best to leverage PLCs in the improvement endeavor. It will be a unique opportunity, to at once be able to offer guidance on data, but also on how to use it with teachers. This work may provide better structural alignment between sites and district stakeholders, because our goals intersect with my study: a focus on student achievement and the tools which can act on it. Onward!

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[i] Learning by Doing, by Robert and Rebecca DuFour, is used generally by principals in the district of study. However, this resource did not contribute to the bibliography of this study.

Appendix I
Early-Release Wednesday Toolkit

Early-Release Wednesday Toolkit

A Guide for Elementary Principals

Table of Contents:

[1]

Dear Principal,

Greetings, and welcome to the first (that I know of) Toolkit for implementing successful Early Release Wednesday collaborative time. First, a little background. I have been working in NVUSD for 25 years. Twelve of those years I spent in the classroom full time, and another 7 years part time as a teaching principal at a small elementary school. With half my time in the classroom, and the other half running a school, I learned quickly how difficult it is to plan robust and meaningful Early Release time on my own. And, as a new principal, I was so overwhelmed with the multitude of other responsibilities of being an administrator, planning for one hour of collaborative time a week was low on the priority list.

In 2009, I started an Ed. D. program and UC Berkeley. My program demanded that all dissertations ended in professional learning for one's colleagues, a Design Study. After much soul-searching, I decided one area where principals needed support was in designing and implementing meaningful collaborative time for teachers within the confines of Early Release Wednesday. This toolkit is an attempt to support principals in that endeavor.

In my work to assemble this toolkit I interviewed six elementary principals, representing the diverse program options offered in NVUSD, and completed multiple observations of collaborative teacher time at their sites. I collected documents like agendas, note-taking guides, templates and examples of minutes. My hope is that by including examples of "enabling structures" that have already proven successful at other schools, I might be able to support the larger Community of Practice of elementary principals in learning from one another.

This toolkit represents the collective knowledge that I have been able to gather, to date, for supporting collaborative time. It is by no means an exhaustive resource. It is meant to be an iterative work-in-progress which can be shaped and improved upon as practices and circumstances evolve. If you have any suggestions for additions to this document, I would very much value your feedback[2].

Sincerely,

Sarah Williams

Director - Assessment and Intervention

Napa Valley Unified School District

swilliams@nvusd.org

[1] This toolkit was produced in the service of forwarding the leadership work of Napa Valley Unified School District, in collaboration with the author. Its use is limited to local educational purposes. Some rights reserved.

[2] Sarah Williams can be reached by email; swilliams@nvusd.org

Drawing from the Research

My Problem of Practice for this work identified that all principals must implement collaborative time on Early Release Wednesday, but not all principals implement it in the same ways. Lack of support for how best to leverage collaborative time and the limitations of some sites compared to others, due to size, funding, demographics, etc. results in varied implementations - some effective, some less so. While all schools are unique, there are some findings from the research that, if implemented, would facilitate effective collaborative time at any site. Anthony Bryk, Ronald Heck, and Jonathan Supovitz, among others, are researchers who have published an abundance of articles regarding effective practices for teacher collaboration. As it turns out, the principal has an important place in those practices. Principals have "an indirect, yet measurable" effect on student achievement when they influence teacher practices. This can be done by leveraging principal leadership in these three ways;

Establish the mission and vision for the school

Create a professional environment of trust and respect

Focus on instruction and set measurable academic goals (usually related to test scores)

Establishing mission and vision for a school is about understanding where you are and what you want to accomplish. The mission and vision ultimately will depend on the larger community and its needs, the nature of the students' needs, and what teachers feel are defining issues at the school, as well as the leader's own ambitions. It is also about having a deeper connection with the real work of public education. Almost all educators come to the field because they have a passion for helping others, specifically, kids. Creating a mission and vision that taps into that passion and that is centered in the culture of the school, helps to create a common purpose that can prove unifying for teachers in their work together.

Vision - According to the Task Force on Developing Research in Educational Leadership (2003), "Effective educational leaders help their schools to develop or endorse visions that embody the best thinking about teaching and learning. School leaders inspire others to reach for ambitious goals" (p. 3). Vision statements embody a common direction for growth that inspires teachers to get better at their practice

Mission - Mission statements "give educators stronger motivation and provide parents with a clearer picture of what the school values. … A clear vision and a common mission that identify the kind of learning to be achieved can help keep the school and the efforts of its staff and students on target" (Peterson, 1995). Mission statements are the "how-to" statements or action plans that help schools achieve their vision.

Creating an environment of trust and respect is less obvious, but the research does give us clues. For instance, in a large study of Chicago schools, Bryk interviewed hundreds of teachers who cited that they felt the principal had respect for them when the principal behaved in ways that demonstrated a belief that teachers had the skills to solve the learning problems students were facing. Investing in time for teacher collaboration and developing a shared plan for improvement, sharing or distributing the leadership role among other teachers, and leveraging peer observations of class time to help monitor instruction in ways that teachers had committed to improving, were all examples of how principals helped develop trust among colleagues.

One might ask why test scores would be important for goal setting. Certainly, doing well on tests is not a complete representation of the value of instruction, however test scores are measurable targets that don't waiver. They represent a tangible goal and allow for adjustment of practices when data are used to progress monitor goals. In other words, creating measurable identifiable goals helps teachers know how to change their teaching when students are not making adequate progress.

Getting Started

With all the principals, I interviewed for this toolkit, each stated that when it came to implement highly effective teacher collaborative time, it was important to have a guide. At some sites, *Learning by Doing,* by Richard and Rebecca DuFour, was the resource that supported collaborative time. In *Learning by Doing*, teachers collaborate for instructional improvement. This collaborative teacher groups are typically referred to as professional learning communities (PLCs). *(In this document, I use collaborative teacher time and PLCs interchangeably.)* Another resource frequently cited was *Data Teams*, published by Houghton Mifflin-Harcourt. This book guides the work of PLCs in strategic ways, focused on data. The school sets goals based on common assessments, determines what reasonable growth on these assessments would be, and then meets to discuss instructional strategies that help meet goals. Less about the construct of the PLC (as in *Learning by Doing*), *Data Teams* focuses on the work of the PLC.

At other sites, PLCs ran without any formal resources per se, but with documents for norms, note-taking and creating SMART Goals [Strategic, Measurable, Attainable, Realistic, and Time Bound]. At these sites, I was under the impression that principals had brought with them, some of the supports they had used previously which may have come from books like those mentioned here, or from previous training opportunities earlier in their careers. Or, perhaps, these were the behaviors of PLCs when the principal took over. Still other models included investing in specific consultants to address pedagogical implementations (like a science specialist for a magnet school). The consultant's work, along with teacher participation and feedback, then sets the goals for the PLCs to monitor and work through during the year.

Regardless of how a principal might choose to begin the work of implementing highly effective PLC time, the trend was to have resource to guide the process. Of all the principals I interviewed, some of them new, other's veteran, the common thread was - *no one was trying to create high quality collaborative experiences for teachers by themselves*. Some manner of resource was used to support the implementation of collaborative time, and set the structures in place for teachers to discuss and consider necessary instructional shifts to keep the learning process moving forward. What did seem to be somewhat unique was the type of resource for each site (although all made references to the work of the DuFour's). It was evident, when speaking to principals, that the resource chosen was a good fit for what the school staff were trying to accomplish; either pedagogically or professionally.

The following resources from the Appendix of this Toolkit, accompany the processes of Getting Started:

PLC Rubric (Pre-and Post-assessment for implementing effective PLCs)

Models, Roles, and Responsibilities

I found, in the schools whose PLC time I observed, there are essentially two models for collaborative time; schools whose PLCs are limited to Early Release Wednesdays, and schools with additional funding who invest in another hour to ninety minutes per week. Schools with additional time rely on grant funding or funding from other sources, like charter allocations. This is an important distinction between elementary schools in NVUSD. Principals understand that instructional improvement is an act that requires preparation. Preparation requires time. In

NVUSD, as in other districts, time is the invisible commodity which necessitates investment as much as any other improvement effort.

This toolkit aims to solve the larger problem of what to do to make one hour, on Early Release Wednesday, effective for improvement efforts. Because a variety of PLC models exist in NVUSD, it is important to cite the options. Funding disparities have been identified throughout the research base, as being problematic to achieving equity among schools. NVUSD is no exception. However, the focus here is still what best to do for the one hour most schools receive since most schools do not have the benefit of additional funding for collaborative time.

The following resources from the Appendix, serve to support PLC preparation and planning:

PLC Process Documentation

Common to All Participants

All the schools I observed ran PLC time with an agenda of some type. For some, the agenda was an email received ahead of time from a PLC teacher leader, which simply stated the topics to be addressed at PLC time. At other sites, it was a more formal document used to guide conversations and decision-making, which brings me to another commonality, all PLCs had a leader to organize the time and keep the conversations on track and moving forward, (at one site the leader was the principal). Notes were taken during PLC time at all sites I observed. These notes were documented in a variety of ways; at one site, the notes were a cumulative document where new entries were placed at the top of multiple pages. In this way, the group could review the conversations of the last meeting. At another site, the notes were taken on a printed-out form that was copied at the end of the meeting and distributed to all involved teachers and to the principal. At many of the PLCs I observed, student generated data guided the discussion. Teachers looked at test scores to discuss growth and to problem-solve over students who weren't demonstrating progress. Teachers reviewed student writing, another form of data, to ask the broader questions of how instruction had influenced what students understood about genres. Another common topic of PLC time, included what kinds of professional development or support teachers in the PLC needed to better plan instructional improvement in the future.

The Importance of Distributed Leadership

When interviewing principals for this toolkit, I discovered many sites where leadership structures, beyond the principal, were used for decision-making as it related to the work of PLCs. Most sites had PLC leaders who managed agendas, recorded minutes, and participated directly in the discussions around student achievement and instructional planning. Sometimes this leadership role at the PLC level extended to the formal Leadership Team, which would then meet with the principal later to determine next steps. These leadership structures appear to be very important to the work of highly effective collaborative time for two reasons; first, it is physically impossible for a principal to be at all places at all times, so it's important to have other leaders participating directly in the improvement process and who can later support decisions about that process; second, because part of creating an environment of trust and respect is about demonstrating faith in teacher capacity - having teacher leaders who are respected among their colleagues, taking a direct role in the school's improvement process, visibly demonstrates this faith.

For my own part, I can attest to how supportive a leadership team can be and how important their input is to the improvement process. As a new principal, I did not understand the importance of distributed leadership. I made the rookie mistake of if if I were the leader, I had to be making all the decisions on my own and take responsibility for all of them, as well. That changed when I implemented a Leadership Team. Suddenly, I had other educator's minds on the same problems as my own, all working to figure out the complex issues related to ongoing improvement and intervention for struggling students.

If I were to share any advice with a new principal reading this document, I would encourage you to seek out teachers at your site who are respected by others and with whom you find common ground and leverage their skills in your leadership structures. These actions are confirmed in the research base. Ronald Heck states in his work on Instructional Leadership, that "*effective principals focus on the internal structures that create the conditions for highly effective collaboration*." In other words, collaborative processes don't just happen on their own. They must be set up for success through careful placement of infrastructure. One of the critical pieces of infrastructure includes, the ways in which leadership is shared and distributed across the school.

Note of Caution

One of the complications of distributed leadership is selecting the right teachers to help you. The truth is, not all teachers who seek leadership roles do so because they want to improve student outcomes. Occasionally, a teacher will come to the leadership role on campus because they are fervent supporters of teacher time, tend to be loud in that support, and can even be bullying in their tactics when working with principals, thinking they are "protecting" their colleagues. This can be particularly troublesome for new principals who inherit leadership structures on their sites. In those instances, it is important for principals to exercise their own power, and excuse teachers from leadership positions who act as roadblocks to improvement. Teacher leadership is a responsibility, not a right. Put teachers in a leadership role who are interested in innovation and implementation. People who will support the work of other educators toward improving instruction.

The following resources support creating agendas and schedules for PLC time:

Sample Agenda

Sample Schedule

Challenges and Conflict

It is important to recognize that implementing collaborative time is not without its challenges; such was a common theme among all the principals I interviewed for this work. One of the most difficult challenges to implementing highly effective collaborative time is cultural. When principals want teachers to use their limited time to focus on data and keep the conversations about learning, there can be push back. If you find yourself at a school where collaborative time was not structured and you try to implement protocols and norms, teachers can feel that they are losing autonomy and professional choice. In those instances, having a guiding resource (like ***Learning by Doing***), can help to third-person the demands for cultural

shift rather than making it appear that all the decisions for change are coming solely from the principal. This is also where having a Leadership Team who can advocate for change on your behalf, is key.

PLCs Focus on Learning

Keeping a focus on student outcome data can be a challenge when trying to implement highly effective PLCs. Data is a touchy subject in general, because its implications are for instructional improvement. Facing what the data show about student understanding (or lack thereof), subsequently reveals student instructional needs that have yet to be bridged by the teacher. Building a culture where data are considered informational and where teachers can learn what more needs to be done to support student achievement, is at the heart of what PLCs do and what collaborative time is for. The combination of having a guiding resource, leadership structures you can lean on, and clear goals and targets, are critical to maintaining this important role of PLCs.

PLCs vs. Teams

It's important to distinguish the work of the PLC as an endeavor of professional learning or inquiry, which aims to improve student outcomes. This kind of inquiry begins with a common problem of practice that all teachers are trying to solve; i.e. ongoing underperformance of reclassified English Learners, or improving performance in writing through the lens of new standards. All teachers in the PLC engage in the same inquiry process, determining which instructional shifts are to be made to try to intervene in student performance to improve it. Common formative assessments are used, to quantify whether such shifts have made a difference for students. And, teachers meet to discuss those formative outcomes, determining whether they need to modify their original instructional plans or if they should continue or expand their current processes. In best cases, PLCs can be supported by the leader allowing teachers to visit each other's classrooms during the instructional shifts they've been working on, to give each other feedback about how their teaching is or is not meeting the mark, considering their agreements. Research suggests that feedback from colleagues is a powerful way to help teachers shape and change their instruction toward improvement. Leaders who can help create opportunities for teachers to learn from one another are going a long way to creating trust and supporting the collaborative process on their campuses.

Teamwork, on the other hand, happens when a group of people come together to accomplish a task, where each member of the team has an individual job or role. For example, organizing and setting up a Winter Program for parents requires teamwork. When teachers act like a team, they default to each other's strengths, dividing the workload to simplify their jobs and make the work they do more efficient. The focus of a team is to get things accomplished in a streamlined fashion. The purpose of a PLC is to learn to improve instruction. It is important for leaders to understand the difference and know when teachers need time for each. A common mistake leaders and teachers can make with PLC time, is to call it a PLC when the outcomes are a result of teamwork; like creating intervention schedules, deciding how to mark report cards for students in support classes, or other organizational activities that aren't related to changing practices. Leaders must understand that teachers need time for inquiry and task completion. Building and designating time which allows teachers to accomplish both will make teachers feel respected and increase their senses of efficacy.

How to Prioritize - You Can Do Anything...But You Can't Do Everything

Teachers need time for teamwork as well as working in PLCs, but if the distinction between these activities isn't made it is far easier to default meeting for the purposes of creating organizational structures which simplify teacher's work, and never get to the crucial task of improving teaching and learning. The following are a list of characteristics of PLC work, to help clarify what the outcomes of a PLC should be:

Members work to solve a shared problem of practice (i.e. supporting English Learners in Social Studies, frontloading vocabulary and content)

Members use data as a focal point of inquiry into the problem

Collaboration is for improving student outcomes

Members commit to action research, where each agrees to change teaching practices to measure if those changes result in improvement

Often, something as simple as a school calendar can help prioritize when teachers will need time for tasks and when they'll need to engage in PLCs. For example, knowing when a district wide assessment will be given is an easy way to know that teachers will need time to look at the data, discuss potential implications, and engage in the work of improving their instruction. Knowing that Open House is coming up or that a parent workshop is eminent, is a good time to allow teachers the chance to team up, to help things go smoothly. These enabling structures are things that principals can provide which help everyone stay one step ahead. Leadership teams can also help with the prioritization process, by acting as a liaison between teachers and the leader helping the leader to know where the 'pressure points' are, i.e. ongoing behavior issues with certain students, lack of growth in an intervention class, struggles implementing new curriculum, etc., helping to decide when and how best to deal with them.

Establishing and Enforcing Norms

Norms are an agreed upon list of professional behaviors which allow people to work together, in this context, within a PLC. Creating norms is relatively easy, and there are any number of resources on the internet (and included here in the appendix) for helping PLCs create norms. The tricky part comes in the enforcement of norms. According to Kenneth Williams, trainer for All Things PLC (www.allthingsplc.com), creating norms is a feel-good process where professionals walk away with the understanding that they've accomplished something. But, the all-too-often missed step is, *what will the PLC do to enforce norms when a member violates them*? It is important to address norm-violations as a part of the norm-development process and to have PLCs consider ways they can respectfully acknowledge when a norm has been violated. Often, having a Process Observer, as an identified role within the PLC can be a way of maintaining norms. However, it requires a high degree of trust among members to leave the responsibility of norm-enforcement to a single person. What may be more effective is to facilitate a group discussion for light and humorous ways in which the group, can acknowledge a norm violation. In an example that comes from The National Staff Development Council, in an article titled, *"Norms Put the "Golden Rule" Into Practice"*, some PLCs used colored sticky notes or cards (yellow and red) for each team member to hold up when a norm was violated. The violation then was acknowledged, the offender apologized, and the meeting moved on.

Sometimes, enforcing norms will require more specific intervention, especially when the group has a repeat offender, or when the topics of discussion are highly sensitive like when receiving feedback about instruction or curriculum units. In those instances, it is important that the larger group has discussed ways of being respectful to each other and committed to the improvement process. This section includes some ways of managing conflict, which can be helpful for enforcing norms under more difficult circumstances.

Teacher Turn-Over

Another challenge to implementing PLCs, is turn-over. This is an eventuality at every site, the importance of which is often missed by new administrators. Each time new teachers are brought into a school, norms should be restated, common PLC practices should be reviewed and taught to new teachers, protocols for running PLCs should be retaught. It's very important to have a system in place for "onboarding" new members. Again, distributed leadership structures can save a principal a lot of time and struggle. Having PLC leads help with teaching new teachers about their roles and responsibilities at the site and in PLCs, is an effective way to keep teacher focus on student achievement and school improvement. If you're lucky, you may even have new teachers with a Support Provider from their teacher training programs (BTSA), all on site. If this is the case, then the Support Provider can assist with the acculturation process of new staff. As with the collaborative process itself, onboarding new staff does not just happen. Structures should be put in place to ease the transition of new teachers into their roles at the school. Effective principals know this, and build those systems ahead of time, so the process of school improvement is not interrupted.

Varied Expertise and the Negative Nelly

Other challenges to sites included differentiated strengths between teachers or grade levels. Working with one PLC that may be struggling to operate effectively, cannot compromise the good work of the rest. Having effective shared leadership structures can support a principal who

needs to spend some direct time with certain groups of teachers. Conflict is a frequent occurrence among educators who have diverse perspectives about student learning. Principals in this study cited how important having norms is to manage conflict, even helping to make conflict productive. Near to this, is the need to address teachers who do not follow norms, or put their own beliefs ahead of team agreements. Negative influences on PLCs can throw teachers off course and contribute to wasted time. In this case, negativity needs to be dealt with directly.

Difficult conversations must be had with teachers who threaten the integrity of the school mission.

A principal is best leveraged to have these conversations. It would not be appropriate to use shared leadership for managing negative teacher behavior. Advice about this from principals in this study include; be cautious about putting negative teachers in leadership roles, if they're already in leadership roles when you arrive, consider restructuring. Restructuring leadership systems is one of the few things principals can do without any shared processes or input. In those cases, (much like acting "presidential" means embracing powers that only presidents are allowed) embracing the power of the principalship can lay the groundwork for success. Use norms to remind more negative participants of their roles and the expectations of what professional behavior looks like in PLC time. And, when norms are violated, call it out. One common mistake of new principals (and less effective veteran principals) is to implement support structures and not hold staff accountable for them. Part of developing a culture of respect includes holding people accountable for maintaining their commitments.

Effectively Managing Conflict

Conflict among teachers can paralyze the work a PLC must do. It can often be difficult to pinpoint the roots of the conflict to get to the cause and find resolution. Timothy Kanold, a former Superintendent in Illinois and current consultant for Solution Tree discusses the three main verbal attacks which represent the "implicit attitudes" of resistors on a team in his latest blog; 1. Your idea isn't relevant because the "problem" you've identified doesn't exist, 2. The "problem" exists but your idea to solve it, isn't a good one, 3. The problem exists, and your idea is a good one, but it could never work here. The point of a PLC isn't meant to elicit competition among members for whose idea is the best, but rather which idea has the potential to serve the greatest good. Redirecting focus back to the purpose of the PLC; improving outcomes for students, is one way to redirect team conflict back in a positive direction.

Kanold goes on to define resistant colleagues using three terms; The Skeptic, The Cynic, and The Opposer. **The Skeptic** is typically a conscientious teacher with a fixed mindset about their own abilities. *These team members need time and a useful role in the PLC, to help them build the confidence they need to move forward*. **The Cynic** is a teacher who fears accountability and criticism and being blamed when efforts don't pan out. *The best way to motivate a cynic is to place them in a powerful PLC and use the leverage of their peers to help them shift their perspective*. **The Opposer** is a teacher who fears power shifts and disruptions to the status quo, which may jeopardize their own position and/or influence. Dealing with an Opposer can be tough. The best way to mitigate their resistance to moving forward is to *make the PLC the status quo; a part of the school culture that is central to all problem-solving*. It is also important to have a plan for conflict resolution, to shift the thinking of an Opposer.

Conflict Resolution In 7 Steps

Confront Conflict ASAP - when teacher relationships break down, confront immediately or risk prolonged issues recurring and interfering with the work of the PLC.

Separate the team member from her actions - typically when PLCs have problems, it's because one of the members violated a crucial norm; didn't arrive on time, didn't contribute in a positive manner, didn't follow through on an agreed upon project or assessment. It is important to separate the teacher member's actions from their personhood. Direct the PLC to address the behaviors, without attacking the individual.

Give the benefit of the doubt - assume there is a reason for the PLC member to be late, or to not deliver on an agreement, and allow them to explain.

Avoid Absolute Words - don't use words like "always" or "never"; i.e. "You're always late." or "You never follow through on your promises." These words are exaggerations, not truths, which undermine resolution and work to personally injure an already vulnerable member of the PLC.

Avoid Sarcasm - like using absolutes, using sarcastic comments acts as a sideways blow to the emotions of a PLC member who is already compromised. Sarcasm is not productive to problem-solving, it encourages further rancor. I.e. "We all know you think you're too good for us." "Guess we'll be completing this work without your help...again."

Tell them how you feel - when dealing with PLC member's violation of norms, talk about how their behavior affected the team. Speak honestly of how their lack of participation cost the PLC and the students you're meant to serve. Often team members who violate norms and values of the team do not recognize the fall out of their behaviors. Honest communications about the value of each member's contribution and the consequences of failed participation is a helpful way to confront offending teachers, without attacking them personally.

Keep a clean slate - at some point all PLCs face adversity and disagreement. Conflict is an unavoidable outcome of diverse people working together on the same problem. Once the PLC has confronted bad behavior in other members, and reached agreements to move forward, all must commit to letting go.

The following resources from the appendix are meant to support the development and monitoring of Norms to support the work of the PLC.

<u>Creating and Enforcing Norms</u>

<u>Grade Level Example of Norms</u>

The Role of the Principal in PLC Time

It was a fact for all principals that the role of school leaders sometimes interfered with participating in PLC time. Special Education meetings, like IEPs, addressing the concerns of a parent, writing a School Plan and Budget, sometimes minimize the participation of the principal in PLCs. When principals could participate I found they did so in two distinct ways; first, as a facilitator who helped to guide the conversations or discussions (especially when dealing with a difficult topic like unfavorable data); next, as a supporter who actively helped to score papers, create observation schedules for release days, analyze data, etc. Similarities in the comments from all principals included their belief that listening during PLC time is one of the most important things a principal can do, to support teachers. One resounding theme among leaders

was that when PLC culture is in-tact, teachers often seek out the participation of the principal. Feedback from the school leader is desirable when the teachers feel they are on the same professional page as the principal. Being a participant in the PLC is also another way to provide leadership within the supportive structures of collaboration. It's an opportunity to guide instructional improvement while being free of the evaluative implications principals have in the improvement process. Giving teachers the opportunity to see the principal in this hands-on role with PLCs is another way to foster trusting relationships among staff.

Summary

Principals can affect student achievement by influencing teacher practice, in three ways;

establish mission and vision for the school

build and foster trusting relationships among staff

set performance targets/goals and monitor them

Principals do not create highly effective PLCs on their own - they need a guiding resource.

Effective PLCs engage in professional inquiry, are run with agendas, minutes, and notes and almost always have student data as a focal point of the work.

Effective principals develop leadership structures that leverage the leadership capacity of other staff, and use those resources in the ongoing improvement process, specifically in PLCs.

Cultural (priority) shifts, teacher turnover, and negativity toward collaboration are the main challenges to implementing highly effective PLCs. Having a plan for conflict resolution, establishing norms - holding everyone accountable for them, and managing negativity directly, are ways effective principals prepare for these challenges.

Principals participate in PLCs when they are available to listen, PLC culture is healthy, and collegiality has been established. The principal's role in these cases, is supportive and hands-on.

Appendix

PLC Performance Rubric

PLC Process Documentation

Team Building Considerations

Creating and Enforcing Norms

Grade Level Norms Sample

Sample Agenda

SMART Goal Planning and Templates

Example Schedule

Data Analysis Protocols

National School Reform Faculty *Article*

40 Minute Data Overview

Building Capacity in the PLC

Data Principles and Safety Regulations

Data Analysis Protocol for Teachers

PLC Rubric

A good practice for beginning the PLC process is to first rate the current conditions of the PLC at the site. This rubric is not unlike many used with the DuFour's work and others. What I like about this tool is the simple language and examples, as well as streamlined conceptual frame for the work of a PLC. This rubric seems best to fit a toolkit approach to implementing a PLC.

In this rubric, the left side represents the most beginning stages of implementation, "Starting Out." The rubric progress across to the right, with the highest level of performance being "Sustaining." This rubric defines the characteristics of a PLCs along 5 essential indicators; shared mission and vision, collaboration focused on learning, collective inquiry - the process of teachers working together to answer questions about student performance is they pertain to instruction, action research - the work of changing current practices and measuring the outcomes in student learning, for the purposes of ongoing improvement, and finally, being results oriented - a professional disposition wherein the collective group of professionals expects student outcomes to improve due to the collaborative process of the teacher community of practice.

Your Professional Learning Community Implementation Rubric				
5 ESSENTIAL CHARACTERISTICS OF A PLC				
PLC characteristics	Starting Out	Developing	Deepening	Sustaining
One: Shared mission, values, purpose, goals	Team members have diverse values and goals related to mathematics instruction. May still work in isolation, on lessons, assessments, and improving instruction	An increasing number of team members share values and goals related to math instruction and participate actively in collaborative work to improve student math achievement.	Most team members are committed to improving student math achievement. Most staff work collaboratively to improve mathematics achievement through the PLC structure.	High degree of commitment to continuously improve student math achievement. General agreement on best practices for math instruction and eagerness to implement best practices. High degree of commitment to collaboratively improving math instruction through the PLC structure.
Two: Learning-focused collaboration	Many staff work in isolation. They focus on their own goals, value self-reliance and rarely share practices and strategies.	Some staff work together across the PLC, with joint planning, sharing strategies, and engaging in whole-school-wide projects.	Staff increasingly plan together, collaborate and share ideas through meetings, website/email resources, etc.	Collaborative planning of learning and teaching activities is taken for granted.
Three: Collective Inquiry	There is little reflection or inquiry into practice. Data collection and the use of data to inform and develop learning and teaching practice are limited. Data may be an end and often as someone else's problem.	Some team members are involved in activities to investigate and improve learning and teaching (e.g. peer observation and coaching action research, review and moderation of pupils' work, etc.) Data collection and use of data to inform and develop learning and teaching are variable across the school.	Many team members are actively involved and show increasing confidence about using different methods to explore and improve learning and teaching. Data collection and the use of data to inform and develop learning and teaching are increasingly consistent across the school.	A questioning orientation to practice and 'need to know how we are doing and how we can improve' is pervasive. Team members confidently use a wide range of methods to investigate learning and teaching using findings to inform and develop their practice. Data

				are collected, analyzed and used to support this process.
Your Professional Learning Community Implementation Rubric				
5 ESSENTIAL CHARACTERISTICS OF A PLC				
PLC characteristics	**Starting Out**	**Developing**	**Deepening**	**Sustaining**
Four: Action Research	Team members resist changing their instructional practices in mathematics even when evidence shows they aren't working. They may be reluctant to learn new strategies even when research supports them. Emphasis is given to how teachers liked various approaches, rather than if they improved student learning.	Some team members are changing their instructional practices in mathematics and are willing to learn new research-based strategies.	Many team members are seeking better instructional practices for teaching mathematics, and working collaboratively with others to improve instruction.	Team members routinely seek to improve instructional practices for teaching mathematics, and work collaboratively with others to improve instruction. Effects on student learning are the primary basis for assessing improvement strategies. PLC members constantly turn their learning and insights into action. They rigorously assess their efforts., demanding evidence in the form of student learning.
Five: Results Orientation	Team members do not assess their efforts based on tangible results. They do not analyze results to find evidence of improvement, and do not use evidence of success to improve their practice.	Team members sometimes assess their efforts based on tangible results. Sometimes they analyze results to find evidence of improvement, and do not use evidence of success to improve their practice.	Most team members assess their efforts based on tangible results. Most team members analyze results to find evidence of improvement, and use evidence of success to improve their practice.	All team members routinely assess their efforts based on tangible results. They are hungry for evidence of student learning and use that evidence to inform and improve their practice.

Adapted from the National College for School Leadership, Nottingham, England

Your Professional Learning Community Implementation Rubric				
3 Big Ideas of a PLC				
PLC characteristics	**Staring Out**	**Developing**	**Deepening**	**Sustaining**
PLC Big Idea #1 What do we want students to learning and what prerequisite skills do the students who aren't getting it need to learn?	LITTLE OR NO FOCUS ON THESE QUESTIONS IN PLC	SOME FOCUS ON THESE QUESTIONS IN PLC	TEAM IS USUALLY FOCUSED ON THESE QUESTIONS IN PLC	STRONG FOCUS ON THESE QUESTIONS IN PLC
PLC Big Idea #2 How will we know if students have learned?	LITTLE OR NO FOCUS ON THIS QUESTION IN PLC	SOME FOCUS ON THESE QUESTOINS IN PLC	TEAM IS USUALLY FOCUSED ON THESE QUESTIONS IN PLC	STRONG FOCUS ON THESE QUESTIONS IN PLC
PLC Big Idea #3 What will we do if students don't learn? How will we scaffold core instruction to better support them; how will we provide small group instruction so they can learn what they need?	LITTLE OR NO FOCUS ON THESE QUESTIONS IN PLC	SOME FOCUS ON THSE QUESTOINS IN PLC	TEAM IS USUALLY FOCUSED ON THESE QUESTIONS IN PLC	STRONG FOCUS ON THESE QUESTIONS IN PLC

Adapted from the National College for School Leadership, Nottingham, England

Your Professional Learning Community Implementation Rubric				
Other				
PLC Characteristics	**Starting Out**	**Developing**	**Deepening**	**Sustaining**
Collective Responsibility	Staff do not feel a sense of whole-team shared responsibility for ALL students	Some staff members feel a sense of collective responsibility for ALL students in the school.	There is a growing sense of collective responsibility through the team and school for the learning progress, development, and success of ALL students.	A desire to do the best for ALL students pervades the PLC team's work.
Positive Orientation	Lots of 'why we can't' complaints/blame about students, administration, parents, etc.	Some team members hold a positive orientation and 'can do' attitude toward helping all students learn, others are skeptical or resistant.	Most team members hold a positive orientation and 'can do' attitude toward helping all students learn; a few are still skeptical or resistant.	Positive focus on action oriented solutions. Strong collective belief that all students can learn what we are teaching them.
Mutual trust, respect, and support	Staff relationships highlight issues around trust and conflict. A blame culture may exist. Trust and respect exists among some members of smaller groups or departments, but staff may be defensive about classroom practice, and reluctant to seek team support for improvement. Improvement issues are viewed as a threat by several staff.	A moderate level of trust exists school-wide, with increasing mutual respect, although there is some anxiety about being open about practice and asking for team support for new learning. There is mutual trust and respect among some groups of staff who work closely together.	Trust, respect, and positive professional relationships are developing school-wide. Staff are increasingly open about their practice and seek the team's support to improve practice.	Staff relationships are characterized by openness, honesty, mutual trust, respect, support and care. Staff are very open about their practice, feel safe sharing their practice and easily ask for the team's support for professional learning and improvement.
Established norms for procedures, including use of agendas, protocols, reporting mechanisms, etc.	The PLC team does not routinely follow an agenda, set and follow group norms, use protocols to foster collaborative work, or report and share progress with other teams, and building/district leaders.	The PLC team sometimes follows an agenda, sets and follows group norms, uses protocols to foster collaborative work and reports and shares progress with other teams and building/district leaders	The PLC team usually follows an agenda, sets and follows group norms, uses protocols to foster collaborative work and reports and shares progress with other teams, and building/district leaders	It is standard practice for the PLC team to routinely follow an agenda, set and follow group norms, use protocols to foster collaborative work, and report and share progress with other teams, and building/district leaders

Adapted from the National College for School Leadership, Nottingham, England

PLC Process Documentation

"Five Steps to PLC Process" graciously contributed by, Judy Cunningham - Education Consultant

5 STEPS TO PLC PROCESS

1. **Clarify essential learnings** (skills, knowledge, dispositions) for each course/subject to ensure students have access to a guaranteed and viable curriculum, unit by unit.

2. **Develop multiple common formative assessments** per year for each course or content area.

3. **Establish a specific target** or benchmark score that is sufficiently rigorous to ensure success on high-stakes assessments.

4. **Analyze results** of common formative assessments.

5. **Identify and implement improvement strategies** for intervention and enrichment

Documentation of Team Meeting

Team:_____ **Date:_____**

Team Members Present:	**Team Members Absent:**

Inquiry	**Response**
The focus of our meeting is…	
The data driving this work is…	
The plan to set students up for success includes…	
A promising strategy everyone agrees to use is…	
Our common accountability is…	
Our plan to use results to inform our work is…	
Other:	
Our next meeting is…	

Team Lead signature *Administrator signature*

A spot for taking your personal meeting notes:

1. Purpose: Pull information from data and design plan of action to support student learning. Note: the data can be your discoveries while looking at student work or benchmark scores, or quizzes or pre-assessments, or…

2. Students are succeeding…

3. Students are struggling…

4. How we will set students up for success is…
    a. As a grade level team, we need to…

5. Effective strategies we commit to implement are…

6. How we will assess student growth…

7. Review our action plan

8. Our reflection of the meeting process today…

9. Our next meeting date and time is…
    a. The agenda will be…
    b. The facilitator will be…

Note: Any topics not specifically focused on today's questions can be put in the parking lot to be addressed later.

Parking Lot:

A 30/40 Minute Team Meeting to Plan Best Practices

Before the Meeting (Facilitator)

Agenda: Distribute in advance. Post in clear view of participants.
Recording Tool: Have flip chart record brainstorming – add chart headers.
Appoint facilitator, timekeeper, and recorder.
Print Focusing Questions in LARGE letters on the first chart (it should fill the chart) – post to the side of the easel or hang from the bottom.
What strategies can we use to pre-teach, set all students up for success?

1.	**Beginning the Meeting (Facilitator)** • Review the norms. Establish and articulate purpose of meeting and desired outcomes. Surface and commit to effective strategies to implement to pre-teach, setting all students up for success	2 minutes
2.	**Effective pre-teaching strategies (chart)** • Each member of the team has a chance to share effective pre-teaching strategies they have used successfully	5 minutes
3.	**What do we need to anticipate regarding student needs? (chart)**	
4.	**How will we set students up for success? (Brainstorm)** • All team members stand around the chart to brainstorm ideas with the support of the facilitator and recorder, guided by these two questions: - What prior knowledge, vocabulary, and learning processes will students need to be successful? - What strategies will be most effective for pre-teaching?	10 minutes
5.	**Strategies we each commit to implement between today and our next meeting.** • Circle on your brainstorming chart and complete your Action Plan	10 minutes
6.	**How will we know if our strategies are effective?** • What evidence will indicate the effectiveness of these strategies?	5 minutes
7.	**Facilitator reviews the Action Plan and Commitments**	2 minutes
8.	**The Team reflects on the meeting process/effectiveness**	2 minutes

After the meeting – Recorder distributes a memo documenting the team's action plan between now and the next meeting.

A 30/40 Minute Team Meeting for Problem Solving

Before the Meeting

Agenda: Distribute in advance. Post in clear view of participants

Recording Tool: Have flip chart record brainstorming – add chart headers

Appoint facilitator, timekeeper and recorder

Print: Focusing Questions in LARGE letters on the first chart (it should fill the chart) – post to the side of the easel or hang from the bottom

1.	**Beginning the Meeting (Facilitator)** • Review the norms. • Establish and articulate purpose of meeting and desired outcomes…" Develop an intervention plan for not yet" proficient students within our school day."	2 minutes
2.	**Effective interventions (chart)** • Each member of the team has a chance to share effective interventions they are using	5 minutes
3.	**What are our chief challenges and barriers to intervening effectively with our 'not yet' proficient students? (chart)**	3 minutes
4.	**How we will provide appropriate interventions? (Brainstorm)** • All team members stand around the chart to brainstorm ideas with the support of the facilitator and recorder, guided by this prompt: *Without barriers, share all ideas that we thin will support students who need more facilitated, targeted time and support.*	10 minutes
5.	**Developing a plan to present to the faculty** • Circle ideas on your brainstorming chart that you agree to consider incorporating in your plan. • Complete and chart your Action Plan.	10 minutes
6.	**How will we know if our interventions are effective? What evidence will indicate the effectiveness of our plan?**	5 minutes
7.	**Facilitator Reviews the Action Plan**	2 minutes
8.	**The team reflects on the meeting process/effectiveness**	2 minutes

After the Meeting – Recorder distributes a memo documenting the team's action plan.

A 30/40 Minute Team Meeting for Global Planning

Before the Meeting

Agenda: Distribute in advance. Post in clear view of participants

Recording Tool: Have flip chart record brainstorming – add chart headers

Appoint facilitator, timekeeper and recorder

Print: Focusing Questions in LARGE letters on the first chart (it should fill the chart) – post to the side of the easel or hang from the bottom

1.	**Beginning the Meeting (Facilitator)** • Review the norms. • Establish and articulate purpose of meeting and desired outcomes…a foundation for developing a plan to implement "writing across the curriculum."	2 minutes
2.	**Effective examples of writing across the curriculum strategies (chart)** • Each member of the team has a chance to share strategies they have used successfully	5 minutes
3.	**What are our chief challenges to implement a writing across the curriculum plan (chart)**	3 minutes
4.	**How will we put in place: (Brainstorm)?** • All team members stand around the chart to brainstorm ideas with the support of the facilitator and recorder., guided by these questions: a. What prior knowledge, vocabulary, and learning processes will teachers need to be successful? b. What strategies will be most effective? c. What collaboration must take place?	10 minutes
5.	**What action steps will be taken between today and our next meeting?** • Circle ideas on your brainstorming chart and complete your Action Plan.	10 minutes
6.	**How will we know if our plan is effective? What evidence will indicate the effectiveness?**	5 minutes
7.	**Facilitator reviews the Action Plan and commitments**	2 minutes
8.	**The team reflects on the meeting process/effectiveness**	2 minutes

After the Meeting – Recorder distributes a memo documenting the team's action plan between now and the next meeting.

A 30/40 Minute Results Meeting Format (Looking at Data for Guiding Information)

Before the Meeting

Study the Data: Be prepared to discuss (8 minutes)

Recording Tool: Have flip chart ready to record brainstorming. Record action plan.

Designated tasks: Appoint facilitator, timekeeper and recorder

Review: the collaborative tools included in this toolkit

Meeting Beginning (Facilitator) • Establish and articulate purpose of meeting (derive meaningful information from the data and outcomes desired – a plan of action	2 minutes
Strategies that Worked • Each member of team has a chance to offer their observations of the data – where results are positive	5 minutes
Chief Challenges • Each member of the team has a chance to offer their observations of the data – where results indicate need for attention.	8 minutes
Proposed solutions (Brainstorming) • What can we do to prevent poor performance? • What are possible interventions for students who perform poorly? • What might we need to change about the way we work as professional teams at the district level and at schools in our district?	10 minutes
Action Plan • What is a plan of action for the way we will work to assure that ALL students are learning?	10 minutes

Recorder will share ideas in the action plan with all participants.

Documentation of Team Meeting - Meeting Summary #1

Grade Level Team: Date:

Percentage of students at your grade level who are proficient or above on the _____ Assessment _____
(Date)

Team Members Present:	Team Members Absent and Reason:

Documentation

Successes / Evidence	Effective Strategies	Challenges

New Strategy:

Expected Successes / Evidence	Effective Strategies	Anticipated Challenges

Questions / Concerns:

Team Lead Signature: Administrator:

Documentation of Team Meeting - Meeting Summary #2

Grade Level Team: Date:

Team Members Present:	Team Members Absent and Reason:

1. The focus of our meeting is….

2. The plan to set students up for success includes…

3. A promising strategy everyone agrees to use is…

4. Our common accountability is…

5. Our plan to use results to inform our work is…

6. Other notes….

Our next meeting is _____

Team Lead signature Administrator

Admin Response…

A Sample – Meeting Documentation

Team: Date:

Our focus area is….

Success	Chief Challenges	Action Plan

SMART Goal: specific, measurable, attainable, results oriented, time bound…

Questions / Concerns:

Tool

Brainstorming Guidelines

The purpose in teamwork is to create SYNERGY (the toal effect of working together is greater than the sum of the individuals working separately).

Brainstorming is a tool to produce as many good ideas or strategies as possible in a fast, high-energy setting. I tis often the most creative and powerful portion of a productive meeting.

1. The objetive of the brainstroming session should be clearly statin in writing

2. The recorder writes down each idea on the board of a flip chart for all to see. Each idea should be seen by each team member. (In order to catch all the ideas in a short period of time, you may want to have two charts with two recorders, each recording every other contribution.)

3. Each team member should conribute at least one idea.

4. Each team member has the option to "pass" when it is his or her turn to contribute

5. Each contribution should be clear and succinct – stated in 20 seconds or less.

6. Each contribution is accepted without criticism to build confidence and momentum.

7. The recorder may seek clarification to ensure each contribution is fully understood.

8. The brainstorming session should last no longer than 10 mintues.

Tool

Ordered Sharing

Ordered sharing is a process that provides equal time for all members of a group to share in a safe environment. The process should be used with groups of 5 – 7 people. The process consists of three parts:

Round One – Each person states one or two sentences about the topic, issue or article. Peple can pass. There is no responsse to the speaker – no dialogue at this time. It is an opportunity to be sure that everyone has the opportunity to be heard. It is importan t that the appointed facilitator hold everyone to the norms of this process. It is sometimes helfule to pass an object around so the speaker is holding the object and then passes it to his/her left/right to the next speaker. This reminds everyone that it is one person's turn to spak and that they too will have a turn to share or pass. This process results in hearing from everyoen rather than from just the more assertive vocal ones. It also helps development of listening skills.

Round Two – Open dialogue between any. Set a specific amount of time and have a timekeeper let the group know when 2, 3, or 5 minutes has passed. The group may need to extend for 2 or 3 more minutes if they think there are still new ideas surfacing or clarification taking place. By this time it is usually repetition of thoughts and ideas.

Round Three – Finalize by doing one more round similar to round one, thus everone has the opportunity to contribute one last thought in 10 to 20 seconds.

CRITICAL ISSUES FOR TEAM CONSIDERATION

TEAM NAME:

TEAM MEMBERS:

Use the scale below to indicate the extent to which each of the following statements is true of your team.

1	2	3	4	5	6	7	8	9	10
Not True of Our Team				Our Team is Addressing					True of Our Team

1.		We have identified team norms and protocols to guide us in working together	11.		We have established the proficiency standard we want each student to achieve on each skill and concept examined with our common assessments.
2.		We have analyzed student achievement data and have established SMART goals that we are working interdependently to achieve.	12.		We have developed common summative assessments that help us assess the strengths and weaknesses of our program.
3.		Each member of our team is clear on the essential learnings of our course in general as well as the essential learnings of each unit.	13.		We have established the proficiency standard we want each student to achieve on each skill and concept examined with our summative assessments.
4.		We have aligned the essential learnings with state and district standards and the high-stakes exams required of our students.	14.		We have agreed on the criteria we will use in judging the quality of student work related to the essential learnings of our course, and we practice applying those criteria to ensure consistency.
5.		We have identified course content and/or topics that can be eliminated so we can devote more time to essential curriculum.	15.		We have taught students the criteria we will use in judging the quality of their work and have provided them with examples.
6.		We have agreed on how to best sequence the content of the course and have established pacing guides to help students achieve the intended essential learnings.	16.		We evaluate our adherence to and the effectiveness of our team norms at least twice each year.
7.		We hae identified the prerequisite knowledge and skills students need in order to master the essential learnings of our course and each unit of the course.	17.		We use the results of our common assessments to assist each other in building on strengths and addressing weaknesses as part of a process of continuous improvement designed to help students achieve at higher levels.
8.		We have identified strategies and created instruments to assess whether students have the prerequisite knowledge and skills.	18.		We use the results of our common assessments to identify students who need additional time and support to master essential learnings, and we work within the systems and processes of the school to ensure they receive theat support.
9.		We have developed strategies and systems to assist students in acquiring prerequisite knowedge and skills when they are lacking in those areas.			
10.		We have developed frequent common formative assessments that help use to determine each student's mastery of essential learnings.			

Creating Norms

This activity enables a team to develop a set of operating norms of ground rules.

Preparation: Before the meeting write the list of sample norms from this handout, on a piece of chart paper and post on the meeting room wall. In addition, make six more posters for the following categories; time, listening, confidentiality, decision making, participation, expectations. Please these posters on the meeting room wall as well.

Supplies: Chart paper, sticky notes, pens/pencils.

Time: Two hours

Directions

1. Indicate to the team that effective teams generally have a set of norms that governs individual behavior, facilitates the work of the team, and enables the team to accomplish its task.

2. Point out the sample norms that are posted in the room. Point out the other six posters and the questions that are posed on each one

3. Recommend to the team that it establish a set of norms:
   - To ensure that all individuals can contribute in the meeting
   - To increase productivity and effectiveness
   - To facilitate the achievement of its goals

4. Place a pad of sticky notes on the table and give every person the same kind of writing tool. Ensure that all sticky notes are the same color.

5. Ask each person to reflect on and record behaviors they consider ideal behaviors for a group. Ask them to write one idea on each sticky note.

6. Invite the team members to plae their ideas on the charts at the front of the room. Ask them to refrain from discussion while doing so.

7. Read each norm that has been suggested. Allow time for group members to discuss each idea. As each recommended norm is read aloud, ask the group to determine if it is like another idea that already has been expressed. Sticky notes with similar ideas should be grouped together.

8. When all of the sticky notes have been organized assign two individuals to work together to write the norms suggested under each heading. In some cases, there may be only one norm in others there could be several. Record.

9. Read each of the proposed norms aloud to the group. Determine whether the group can support the norms before the group adopts them. You could ask for a thumbs-up to indicate support or fine another way for each team member to indicate to the team his or her willingness to abide by these ground rules.

10. When the team agrees that it will abide by this norm, the facilitator writes the norm on a new sheet of chart paper with the label ___ Team Norms. Leave that poster in the team's meeting room for future meetings.

11. The facilitator should also transcribe the norms onto an 81/2 by 11 sheet of paper and make copies to distribute to all team members.

12. The facilitator should review the meeting norms at the beginning of each meeting to ensure that participants are regularly reminded about the agreements they have made to each other.

When establishing norms, consider:

Time • When do we meet? • Will we set a beginning and ending time? • Will we start and end on time?	Decision Making • How will we make decisions? • Are we an advisory or a decision-making body? • Will we reach decisions by consensus? • How will we deal with conflict?
Proposed norms:	*Proposed norms:*
Listening • How will we encourage listening? • How will we discourage interrupting?	Participation • How will we encourage everyone's participation? • Will we have an attendance policy?
Proposed norms:	*Proposed norms:*
Confidentiality • Will the meetings be open? • Will what we say in the meeting be held in confidence? • What can be said after the meeting?	Expectations • What do we expect from members? • Are there requirements for participation?
Proposed norms:	*Proposed norms:*

Sample Norms: We agree to –

• Meet only when there is a meaningful agenda	• Maintain confidentiality regarding disagreements expressed during the meeting
• Start and end on time	• Reach decisions by consensus
• Allow everyone to contribute on agenda form	• Listen respectfully to all ideas
• Post the agenda before the meeting	• Conduct group business in front of the group
• Avoid interrupting others when they are speaking	• Conduct personal business outside of the meeting
• Dress comfortably but appropriately	• Silence all cell phones during meetings
• Have healthy refreshments	• Avoid checking for or sending text messages or e-mail messages during meetings
• Have a different facilitator and recorder for each meeting	• Avoid personal grooming (brushing hair, applying makeup, cleaning fingernails) during meetings
• Differentiate between brainstorming and discussion	
• Address only schoolwide issues	
• Express disagreement with ideas, not individuals	
• Feel responsible to express differing opinions within the meeting	

4th grade DATA TEAMS SAMPLE NORMS 2015-16:

PUNCTUAL: Meetings start on time at 12:45 in room 3. Every minute of DATA TEAMS work is purposed, every minute counts.

PREPARED: Have assessments completed, input data into proper templates, bring all agreed upon data, student work and teacher materials to meetings. Do your part to follow through on agreements.

PURPOSED: Set your agenda and stick to it. Decide on specific goals you want to meet as a team. Hold one another accountable to agreements.

PRESENT: Be fully engaged in the collaboration—your voice is important to the team. Pause to hear each voice. Cell phones on vibrate during meetings.

POSITIVE: Do all you can to be a problem solver and reflective listener. Assume positive intent from all team members.

PLANNED: Before finishing meeting, plan next steps and know what needs to be accomplished before the next meeting.

PARTNERSHIP: All grade level teams own all students. We all share successes and challenges.

Sample PLC Agenda

DuFour Essential Questions: *What do we expect students to learn?* *How will we know they have learned it?* *How will we respond if they have?* *How will we respond if they haven't?*	**Characteristics of PLCs:** Teams working together to solve a common Problem of Practice (PoP) Data as a focal point for understanding the PoP Action Research to determine what instructional changes will take place and be measured Results Orientation - a commitment to improving student outcomes

Date:	Team Members Present:	SMART Goal: (i.e. 50% of students currently scoring Basic on the RI will score Proficient as measured on the December RI Assessment.)

Data Analysis Essential Questions:

Where/on which standards did students do well?

Where did students perform poorly?

Why do we think students had these results?

What will we do to improve them?

Time	**Topic**	**Discussion Notes/Agreements/Who's Responsible for What?**
1:30 - 2:00	Review recent Progress Monitoring data for fluency and comprehension	
2:00 - 2:30	Intervention design and planning - how will we respond to the data?	

TEAM SMART GOAL-SETTING PLAN

Team/Department:

What is our team's 'current reality'? (Areas of strength and potential areas of focus)

Based upon our current reality, we have identified the following area of focus to improve student learning…

We have collectively created the following SMART goal(s) to address this area of focus:

To achieve this goal…

Action Steps: What steps or activities will be initiated to achieve this goal?

Designation: Who will be responsible?

Time Frame: What is a realistic timeframe for each step/activity?

Outcomes/Evidence: What outcomes on student learning do we expect? What evidence will we have to show that we are making progress.

This goal was created collectively, and we are committed to achieving this goal…

Team Signatures

SMART Goals – Template

SMART goals help improve achievement and success. A SMART goal clarifies exactly what is expected and the measures used to determine if the goal is achieved and successfully completed.

A SMART goal is:

Specific (and strategic): Linked to position summary, departmental goals/mission, and/or overall School of Medicine goals and strategic plans. Answers the question—Who? and What?

Measurable: The success toward meeting the goal can be measured. Answers the question—How?

Attainable: Goals are realistic and can be achieved in a specific amount of time and are reasonable.

Relevant (results oriented): The goals are aligned with current tasks and projects and focus in one defined area; include the expected result.

Time framed: Goals have a clearly defined time-frame including a target or deadline date.

Examples:

Not a SMART goal:

Employee will improve their writing skills.

Does not identify a measurement or time frame, nor identify why the improvement is needed or how it will be used.

SMART goal:

The Department has identified a goal to improve communications with administrative staff by implementing an internal departmental newsletter. Elaine will complete a business writing course by January 2010 and will publish the first monthly newsletter by March 2010. Elaine will gather input and/or articles from others in the department and draft the newsletter for supervisor review, and when approved by supervisor, distribute the newsletter to staff by the 15th of each month.

SMART Goal:

Specific – WHO? WHAT?

Measurement/Assessment – HOW?

Attainable/Achieve – REASONABLE?

Relevant – EXPECTED RESULT?

Timed – WHEN?

_____ Grade ELA SMART Goal:

Percentage of students scoring proficient or higher in _____ will increase from _____% to _____% by the end of the _____, as measured by _____, administered in _____.

Example Schedule

The following is an example used to give teachers time as a grade level or department group, to allow them to collaborate as a PLC. This example comes from a district where Early Release time is not implemented, and is included here to demonstrate that additional time can be built into schedules for additional collaboration, with some re-budgeting and prioritization. In the Highland Elementary School schedule, the principal has used funds to create "Specials", music, art, and PE classes, which relieve teachers for their mandated duty-free lunch and break, and then collected the prep time before and after school, applying it all at once for "Intervention Team" (this school's name for PLC). Lunch and recess are stacked to allow teachers a full hour, or nearly an hour, of work time in the PLC.

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
Reading/Writing 8:50 – 9:50 60 minutes	Reading/Writing 8:50 – 11:25 155 minutes	Math 8:50 – 10:15 85 minutes	Specials 8:55 – 9:40 Music, Art, P.E., Library, Writing 45 minutes	Reading/Writing 8:50 – 11:15 155 minutes	Math 8:50 – 10:30 100 minutes
Specials 9:55 – 10:40 Music, Art, P.E., Library, Writing 45 minutes	Intervention Team 10:20 – 11:00	Writing 10:15 – 11:00 45 minutes	Reading/Writing 9:40 – 12:00 140 minutes	Intervention Team 9:40 – 10:20	Intervention Team 9:00 – 9:30
Intervention Team 11:25 – 12:25	Lunch/Recess 11:25 – 12:15 50 minutes	Specials 11:00 – 11:45 Music, Art, P.E., Library, Writing 45 minutes	Intervention Team 11:25 – 12:00	Lunch/Recess 11:15 – 12:05 100 minutes	Science/Social Studies 10:30 – 11:00 50 minutes
Lunch/Recess 12:15 – 1:15 60 minutes	Math 12:15 – 1:25 70 minutes	Lunch/Recess 11:50 – 12:40 50 minutes	Lunch/Recess 12:00 – 12:50 50 minutes	Math 12:05 – 1:45 100 minutes Intervention Team 12:45 – 1:45	Specials 9:55 – 10:40 Music, Art, P.E., Library, Writing 45 minutes
Math 1:15 – 2:30 75 minutes	Specials 1:25 – 2:10 Music, Art, P.E., Library, Writing 45 minutes	Reading 12:40 – 2:30 110 minutes Intervention Team 1:00 – 1:40	Math 12:50 – 2:30 100 minutes	Science/Social Studies 1:45 – 2:15 30 minutes	Reading/Writing 12:45 – 3:00 135 minutes
Science/Social Studies 2:30 – 3:00 30 minutes	Science/Social Studies 2:30 – 3:00 30 minutes	Science/Social Studies 2:30 – 3:00 30 minutes	Science/Social Studies 2:30 – 3:00 30 minutes	Specials 2:15 – 3:00 Music, Art, P.E., Library, Writing 45 minutes	Intervention Team 1:40 – 2:20

National School Reform Faculty

ATLAS – Looking at Data

Learning from Data is a tool to guide groups of teachers discovering what students, educators, and the public understands and how they are thinking. The tool, developed by Eric Buchovecky, is based in part on the work of the Leadership for Urban Mathematics Project and of the Assessment Communities of Teachers Project. The tool also draws on the work of Steve Seidel and Evangeline Harris-Stefanakis of Project Zero at Harvard University. Revised November 2000 by Gene Thompson-Grove for NSRF. Revised August 2004 for Looking at Data by Dianne Leahy.

Selecting Data to Share

Data is the centerpiece of the group discussion. The following guidelines an help in selecting data or artifacts that will promote the most interesting and productive group discussions. Data or artifacts that do not lead to a single conclusion generally lead to rich conversations.

Sharing and Discussion of Data

Discussions of some forms of data sometimes ask people to feel "on the spot" or exposed, either for themselves for their students or for their profession. The use of a structured dialogue format provides an effective technique for managing the discussion and maintain its focus.

A structured dialogue format is a way of organizing a group conversation by clearly defining who should be talking when and about what. While at first it may seem rigid and artificial, a clearly defined structure frees the group to focus its attention on what us most important. In general, structure dialogue formats allot specified times for the group to discuss various aspects of the work.

1. Getting Started

- The facilitator reminds the group of the norms. (Note: Each of the next four steps should be about 10 minutes in length. It is sometimes helpful for the facilitator to take notes.)
- The educator providing the data set gives a very brief statement of the data and avoids explaining what s/he concludes about the data if the data belongs to the group rather than the presenter.

2. Describing the Data (10 minutes)

- The facilitator asks: "What do you see?"
- During this period, the group gathers as much information as possible from the data.
- Group members describe what they see in data, avoiding judgements about quality or interpretations. It is helpful to identify where the observation is being make – e.g. "On page one in the second column, third row…"
- If judgments or interpretations do arise, the facilitator should ask the person to describe the evidence on which they are based.
- It may be useful to list the group's observations on chart paper. If interpretations come up, they can be listed in another column for later discussion during Step 3.

3. Interpreting the Data (10 minutes)

- The facilitator asks: "What does the data suggest?" Second questions: "What are the assumptions we make about students and their learning?"
- During this period, the group tries to make sense of what the data says and why. The group should try to find as many different interpretations as possible and evaluate them against the kind and quality of evidence.
- From the evidence gathered in the preceding section, try to infer: what is being worked on and why? Think broadly and creatively. Assume that the data, no matter how confusing, makes sense to some people; your job is to see what they may see.
- As you Listen to each other's interpretations, ask questions that help you better understand each other's perspectives.

4. Implications for Classroom Practice (10 minutes)

- The facilitator asks: "What are the implications of this work for teaching and assessment?" This question may be modified, depending on the data.
- Based on the group's observations and interpretations, discuss any implications this work might have for teaching and assessment in the classroom. In particular, consider the following questions:
    - What steps could be taken next?
    - What strategies might be most effective?
    - What else would ou like to see happen? What kinds of assignments or assessments could provide this information?
    - What does this conversation make you think bout in terms of your own practice? About teaching and learning in general?
    - What are the implications for equity?

5. Reflecting on the ATLAS-Looking at Data (10 minutes)

Presenter Reflection:

- What did you learn from listening to your colleagues that was interesting or surprising?
- What new perspectives did your colleagues provide?
- How can you make use of your colleagues' perspectives?

Group Reflections:

- What questions about teaching and assessment did looking at the data raise for you?
- Did questions of equity arise?
- How can you pursue these questions further?
- Are there things you would like to try in your classroom as a result of looking at this data?

6. Debrief the Process

- How well did the process work?
- What about the process helped you to see and learn interesting or surprising things?
- What could be improved?

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

Data-Driven Meetings

Adapted from Solution Tree: Data Driven Meetings: We Can Do It in 40 Minutes by Judy Smith; www.solution-tree.com

40 MINUTE DATA MEETING OVERVIEW

Objectives:

- To understand that student outcomes are important for improving achievement
- To understand that looking at data collaboratively provides a method for being accountable for evaluating and modifying our instructional practices to meet student needs
- To understand that students learn better when we work collaboratively

Guiding Questions:

- What do we expect students to learn?
- How will we know what students are learning?
- How will we respond to students who are not learning?

Norms:

- Promptness
- Be prepared
- Show Respect
- Be present
- Be positive
- Assume positive intent

Roles:

- Facilitator
- Timekeeper
- Recorder/Notetaker

Protocol Summary:

- Before the meeting: each team member has a copy of the latest classroom data, has reviewed it and brings a copy to the meeting
- Introduction (2min): Begin the meeting
- Sharing (5min): Successes and Ideas
- Current Challenges (5min): Focus Areas
- Proposed Solutions (10min): Brainstorm strategies as a team
- Action Plan (10min): Agree on a strategy
- Closing the meeting (5min): Debrief and Summarize
- After the meeting: Distribute notes and summaries

DATA MEETING PROTOCOL

PRIOR TO THE MEETING

- Data: teachers have up-to-date data and have had time to review for discussion (Classroom Data Analysis Forms are attached)
- Tools: you will need a flip chart or whiteboard to record ideas; markers; and "parking lot" for off-agenda ideas
- Agenda: distribute in advance

INTRODUCTION (2 minutes)

- Review the purpose or goal for the meeting
- Review the norms
- Review agenda
- Facilitator commits to staying to the agenda: any off-topic ideas will be placed on the Parking Lot chart to be discussed at the end of the meeting or later

SHARING IDEAS (5 minutes)

- Record these ideas where everyone can see them
- Members share successes – you may wish to use Classroom Data Analysis form
- Members identify areas where students were most improved

CHALLENGES (5 minutes)

- Record these ideas where everyone can see them
- Determine areas of highest nee – you may wish to use Classroom Data Analysis form
- Identify any common areas of need between classrooms

PROPOSED SOLUTIONS (10 minutes)

- Record these ideas where everyone can see them
- Brainstorm possible solutions for challenges
- State each possible solution as a concrete, doable intervention

ACTION PLAN (10 minutes)

- Examine successful strategies from SHARING IDEAS and ideas from PROPOSED SOLUTIONS
- Select one strategy that everyone will work on between now and the next meeting
- Articulate a goal for the team
- Record the Focus Goal/SMARTE Goal where everyone can see

CLOSING THE MEETING (5 minutes)

- Note what went well and what was difficult during the meeting: how well did the team do based on agreed norms and goals of the meeting?
- Complete the Meeting Summary Form I *or* II

PARKING LOT (TBD)

- If time permits, the team may now address the ideas in the Parking Lot
- Any items not discussed may be placed on the agenda later

MEETING SUMMARY FORM I

Meeting name: Date:

Participants:
_____

What was the intended goal of this meeting?

What were our successes?

What did we learn?

What is our next goal?

What is the focus of our next meeting?

Our next meeting will be:

Date:
Time:
Location:
Facilitator:

MEETING SUMMARY FORM II

SUCCESSES	CHALLENGES
SOLUTIONS	**NEXT STEPS**

SMART GOAL:

CLASSROOM DATA ANALYSIS I

Proficient on these assessments = ___% and higher

Highlight each score of less than ___% on the data sheet

"# STUDENTS" = number of students who score BELOW proficient on each skill/standard:

Skill/Standard:	# Students:
Planned intervention for these students:	

Skill/Standard:	# Students:
Planned intervention for these students:	

Skill/Standard:	# Students:
Planned intervention for these students:	

CLASSROOM DATA ANALYSIS II

Areas where students performed AT or ABOVE benchmark:

Write the STANDARD or SKILL along with the STRATEGIES used	**# students**

Areas where students performed BELOW benchmark:

Write the STANDARD or SKILL along with the STRATEGIES used	**# students**

Ideas for changes in strategies when I teach this skill again:

CLASSROOM DATA ANALYSIS III

Establishing interventions for students who scored below Benchmark:

Student Name	**Intervention**	**Section/Class**

How can I support these students within the classroom during regular instruction?

On this page, write any agenda items, questions, or additional topics that were not addressed during the meeting.

Assessment Analysis for Building Capacity in the PLC

This is a general protocol that can be used with state, district or local assessments. If you use this protocol with broad data (district/state) then the implications are for adjusting instruction at the school or grade level to better meet the demands of the assessment areas; i.e. Common core standards, for whole group/grade level. If you use this protocol with a Universal Screener (DIBELS, RI, MI), the implications are for re-teaching at the differentiated skill level, best used for small group instruction. If you use this protocol with local assessments (formative, embedded) the implications will inform teacher instructional practice for day to day/week to week instructional adjustment; for whole group and at a micro-level, small group/workshops.

Directions:

1. Each teacher gets a copy of results (by grade level first and by classroom after, if possible)

2. Teachers review the grade level data, first and process what they notice, discussing implications.

3. **Only now** do teachers get classroom data for review. Follow the following identification process:

- what are the 3 - 5 strongest performing areas?
- what are the 3 - 5 lowest performing areas?
- why (to both high and low)

4. <u>Discussion Questions (to be used with the Documentation Tool below):</u>

Do any of the low-scoring items represent an "easy fix" instructionally? Which ones?

Do the data reveal student misconceptions about the content? How can teachers clear up those misconceptions?

Did one classroom have students do particularly well on a question that the rest of the classes scored low on? How did those student's teacher address the topic?

Most Important: What will teachers do to help their students improve; review, reteach, warm ups? Be specific and document agreements.

Documentation Tool

Assessment Title: _____

5 Items All Students Did Well On: 1. 2. 3. 4. 5.	**5 Items All Students Need Help With:** 1. 2. 3. 4. 5.
What Item Types Were They? What was the Average % Correct? Go back and label them: multiple choice -MC, multiple response -MR, inline choice or fill in -IC, constructed response -CR. Add the Correct Percentage next to the item type.	
Why were students successful on the items they did well on?	**Why did students do poorly on the items they need help with?**
What are the Easy Fixes?	

What are the main Student Misconceptions?
Instructional Agreements - How We Will Address Student Instructional Needs?

Data Principles and Safety Regulations

Principles of Effective Data Use

• Go visual with the data: create large, colorful, and simple displays of data to aid

• Use data to build understanding and ownership of problems. Engage in dialogue with data so the team owns the problem and embraces the solutions together.

• "Hang out in uncertainty": take time to learn as much as possible from the data. The first solution might not be the best one.

• Separate observation from inference. Fully explore what is there to be learned before imposing interpretations on the data.

• Pay attention to the process: carefully structure Data Team meetings to maximize engagement, learning, attention to equity issues, and the integrity and safety of

• Assure that diverse voices are brought into the analysis. Multiple perspectives provide the richest information.

Some "Safety Regulations" to Guide the Use of Data

• Don't use data to punish (administrators, teachers, students, schools).

• Don't use data to blame students or their circumstances.

• Don't jump to conclusions without ample data.

• Don't use data as an excuse for quick fixes. Focus on improving instruction!

Data Analysis Protocol for Teachers

Part 1

Teacher Name: _____ Course/Section: _____

• Use and attach the Item Analysis Report and Standards Mastery Report to complete this form. These reports can be

found in CIITS and are linked from My School net and the Benchmark Dashboard in Classrooms.

• Look closely for strengths, weaknesses, trends and outliers in the data.

• Fill out this form for each section you teach.

Data Examination

Using the available reports, identify at least three strengths and weaknesses for this assessment. Write a brief description

of the standards mastered and not mastered. Then, list trends and outliers highlighted by the data.

Strengths *1.* *2.* *3.*	*Areas for Growth* *1.* *2.* *3.*
Trends	*Outliers*

Part 2

Teacher Name _____ Subject/Grade _____

Data Summary Sheet

Did certain class sections/groups/subpopulations outperform others? If so, what instructional strategies were used with these students?

Reflection

1. I have discussed the results during lesson planning with……

2. To effectively differentiate instruction, I need to…

3. The following changes in teaching strategies are indicated….

4. What other opportunities will students have to demonstrate mastery of these skills?

5. Based on patterns in my classes' results, I might need some professional development or mentoring in…

6. To provide students with more ownership for their learning based on benchmark assessments, I will…….

Appendix II
Principal Semi-Structured Interviews

Interview Questions

What typically happens on Early Release Wednesdays?

What is your role in supporting PLC time?

What resources do you use to help conduct PLC time?

What challenges have you had implementing this time?

How does the level of teacher-expertise affect the way PLC time is implemented or what you do during the PLC time?

To what extent have relations with external community contribute to the effectiveness of PLC time?

What would you want from a PLC toolkit if you had one?

Appendix III
Feedback Loop 1

Semi Structured Interview for Follow Up

1. If you were a new principal, would this toolkit support you?

The toolkit is helpful. My experience was as a SAIT school that nobody wanted. This work reminds me of my experience because as a new principal, I needed hand holding. If you don't start out with a PLC the right way, the purpose, why we look at data, being collaborative. If I look at this as a new principal, this toolkit does take me through the process, step by step.

I got a mentor and worked with her, so she really supported me. Having this toolkit provides the support to leaders that I didn't have. It is setting the stage to something that isn't clear.

Not all principals come from a place where you have an Early Release Wednesday or designated PLC time. I think that whether you use it as is, or if you take it apart, you have a starting place. It is a true toolkit, you can use parts of it or all of it, your choice.

This is an approach to PLCs, not a how to, which is good. I love the section on managing conflict.

2. If you were a principal looking to improve PLCs, would this toolkit support you?

I would create rubric, to determine where we are and if there has been improvement. I think this toolkit has what is needed to improve PLCs. This toolkit is a way of processing a new leadership team and introducing new ways of handling things and improving things.

This has tools for working with the leadership team.

3. What might you change or add to make this toolkit more complete?

Something missing is examples of Norms or ways for teachers to agree to norms. An example of an agenda, that talks about the difference between collaboration versus co-blab-aeration. Because

PLC time is not planning time, it's not prep time, you're supposed to be working strategically toward a goal. Make the distinction between PLC and meeting time. Use the 4 questions to establish what the work of the PLCs.

What is the role of the principal and what is the role of the leadership team.

What is a definition and clarification between mission and vision. How do you develop one? How do you create a mission/vision statement?

Clarify the agendas and intervention time, and think about budgeting - use a caption

There needs to be a time for planning and prep, this should be designated somewhere. Recognize and honor that some planning needs to be schedule.

Time for reviewing common formative assessments, because if you don't allot time for teacher-created assessment, they won't look at district data.

4. What is not helpful?

Appendix IV
Feedback Loop 2

Parts that made sense and were helpful.

Like there's a roadmap where to start.

Step by step process for running a PLC

Like that you call out that new people need support with PLC understanding

How do you create a continual learning loop so new teachers and students don't fall through the cracks - minimize ambiguity?

Need a system for prioritization - all the different things that happen during ER Wednesday, which comes first, when do you do what, providing organizational structures

Start this implementation with team building and distributing leadership and making accommodations for the differences in expertise and years of experience for teachers and teacher needs - interprofessional development

Look at the section about working with well-liked people, phrase carefully

How to construct the leadership team - not a place for bringing concerns so the principal can fix them - distributed leadership section - people who want leadership are not necessarily the people who want to innovate and explore new ideas

Driving question for PLC time and use of data - how do leaders set the conditions for proper PLC time

How to unite teachers for a common purpose and goal - building consensus

I am liking the clear descriptions in the Models, Roles, Responsibility section, especially when reading the "importance of distributed leadership." One area to clarify: When you say, "The combination of having a guiding resource, leadership structures you can lean on, and clear goals

and targets, are critical to maintaining this important role of PLCs," is "guiding resource," the agendas, schedules and/or norms for group?

When you state, in the section, Common to all Participants, "all PLCs had a leader to organize the time and keep the conversations on track and moving forward," I find this to be so true. We started this a few months ago with our grade level lead who attends Leadership meetings, and having the agenda and someone to keep us focused on the tasks is far better use of our time.

Can you please explain this further? --" A common mistake leaders and teachers can make with PLC time, is to call it a PLC when the outcomes are a result of teamwork." Isn't teamwork part of a PLC? (p.8) This section is unclear to me--isn't PLC time a time of collaboration/teamwork?

I like all the resources you are including, especially samples of agendas for discussing student learning.

Appendix V
PLC Observation Notes

Observation Dates

4/12/16

4/26/16

4/27/16

5/3/16

4/12/16

1:00 - 2:00

Grades 1 and 2

Discussion began with teachers reviewing reading data. Additional teacher who has a 2/ 3 combo could attend for the planning and discussion.

First, teachers were looking at students who had repeated lessons and provisionally passed. Some students had provisionally promoted more than 40 times, meaning the skills they were working on had been repeated to the point of frustration and then they were simply passed on.

Specifically, teachers were comparing data from a reading program with data from early literacy assessments to determine where student's needs were and how best to shape instruction to meet those needs.

One student was discussed at length because of the additional work the mother is having him do at home and how that has decreased his motivation for doing work at school. This student is Special Ed and not making progress in reading now.

Teachers discussed the ways they were intervening with these students:

One teacher will stop the computer work and pull the students one on one during computer time, to give an intervention

Other teachers are using Early Literacy data and progress monitoring to intervene with students and monitoring their progress toward goals

At one point the Academic Specialist circled into the meeting, having coaching conversations (reflective conversations) and taking notes of the agreements and intervention strategies.

The next part of the meeting was referring to SMART goals. Teachers have been working in a data cycle, using common strategies and collecting evidence around student's SMART goals for reading and writing. One teacher commented on how she is getting smarter about SMART goals - stating that the most recent writing assessment was something her students could navigate

easily because her SMART goal had addressed the work they needed to do to respond to a prompt and stay on topic.

The end of the meeting was discussing dates for the end of the data cycle and which assessments needed to be completed to measure progress on the goals.

4/26/16

1:00 - 2:00

Grades 1 and 2 Follow up

PLC team invited Academic Specialist to discuss data from Early Literacy Program. Placement of specific students discussed, based on lack of progress. I participated largely in this discussion regarding retention and alternatives to it.

Site Academic Specialist did note-taking and discussed the SMART goals each classroom had been working on.

Much time spent talking about the issues of a few needy students; lack of support at home, limited family literacy, maladaptive behaviors. A lot of discussion circulated around strategies to assist these students, which took most of the time.

4/27/16

Grades 3, 4, and 5 1:15 - 2:00

Principal took notes and facilitated the discussion. Each grade level was given reading progress reports for their target students. Growth for both reading comprehension and fluency was cited and new goals were set for the next assessment period. Principal was deeply involved in supporting the teachers goal setting and discussing the limitations and needs to try to support the student in the class.

Fluency practice is a part of the homework students are assigned. Teachers noted that students who have home support tend to improve faster than students who don’t.

Teachers have student reading regularly in class using books identified for student’s reading levels, to develop practice with reading and improve comprehension.

5/3/16

4th Grade PLC

Discussing the Gold Rush presentation/assembly. Debriefing the presentation and deciding whether to have another presentation. Generally, the presentation was not that good, the group wants to hold the presentation again but wants to give the presenter feedback so that the presentation could be improved.

The group went over agenda and norms.

Group discussed their student's responses to a writing assessment. Talking about how they taught the transitions. Used some agreed upon constructs for supporting the prompt - drafting happens on paper, the final document is typed into a Google Doc. Used a shared rubric.

PLC discussed what the prompt should be for the post test, given an opinion. Spent some time finding the prompt online. Discussed the lesson progression up to the post writing test. Planned the timeline for wrapping up the grading of the pretest, and calendared the administration of the posttest.

Appendix VI
Coding Documents

What I want to learn about and why:

Principal Interviews:

I *want to learn about Relevant, Coherent, and Easy to Use characteristics of the toolkit I'm trying to develop.*

What do successful implementers of PLCs do with this time? How can I build a toolkit to support that work?

Coherence

Question #1 - What is the current state of successful practices for PLC time?

(one of the possibilities is to change the existing understanding of a traditional education model, to an action research model to compress the time between professional learning and application) - put in manual

PD is often directed study rather than self-study

All schools get time to plan

There is evidence for varying the content of PLC time, based on differentiated levels of teacher expertise

PLC time is structured by minutes and agendas

Evidence of using data in PLC time

Building structures to apply what needs are generated from PLC time; schedules for support, calling in specialists for PD

Teachers discuss and share about instruction and outcomes

Teachers set goals for growth

Different weeks represent different meeting purposes

Question #2 - Principal Role

Focused on PLC needs

Less focus on administrative role

Do not impose upon working PLCs

Often should tend to other responsibilities; i.e. IEPs, SSTs, etc.

Question #3 - Resources

Work on using structures that don't require specific member participation, with a thought to turn-over

Question #4 - Challenges

Enforcing norms

Maintaining a focus on learning

Turnover - acculturation

Getting teachers to work together, growth mindset

Question #5 - Teacher Expertise

Varying levels of expertise can lead to friction on a PLC, folks being afraid to speak up because they're unsure of their teaching practices, some not understanding the data, others dominating conversations or talking about things that newer teachers don't understand - making them feel excluded

Question #7 - What a Toolkit should contain

Reference to Learning by Doing

Re-read Learning by Doing multiple times to strengthen the implementation

What a PLC is and what it is not

Examples of forms, agendas, norms

Problem solving when teams break down

Relevance -

Joint PLC time is tied to our work as a New Tech school

Implementing model-specific policies; i.e. Data Teams, Making Thinking Visible

Some principals participated directly as facilitator or partner

Varying resources by model - may be defining of school culture and monetary differences between schools

External resources; specialists, Data Teams, Fullan, Dufour's, NTN

Additional money for release time

Balancing district demands and site needs is a challenge at schools with newest/least experienced staff

Principal will highlight the work of a struggling teacher in a staff meeting to purposefully give them public praise in hopes their behaviors toward PLC will improve and they'll become more empowered

Purposeful attempts to have teachers share knowledge, new teachers know about new standards more than veteran teachers

Preview data with new teachers at a separate time, outside of the PLC, so they can participate and feel empowered when in mixed groups of expertise

Coding for Field Notes/Observations

What am I trying to learn about?

What goes on in a PLC meeting at schools with successful Early Release Wednesday implementations?

Reviewing student generated data	////
Reflective conversations	//
Goal Setting	//
Instructional conversations	////
Principal involvement	/
Other conversations - not instructional	/
Discussion of home environment, limitations	///
Planning conversations	/

Summary

Reviewing student data and having instructional conversations about strategies and interventions were the most common discussions during PLC time. There was a lot of included discussion about the limitations of the home environment to support the academic needs of the students. Reflective conversations about why the data appeared as they did, and goal setting were the next most frequent types of conversation. Interestingly, direct principal involvement, planning conversations and non-instructional conversations were the least frequent.