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Cultivating Readiness for Professional Learning Community Through Learning Teams in a Restructuring High School

Abstract
The traditional organizational structure of large comprehensive high schools: departmental divisions, teacher isolation, fragmented subcultures, student alienation, and competing group interests have undermined student and adult learning and have thwarted attempts at school reform. Professional learning communities (PLCs) are a promising strategy for advancing student achievement and school reform. Schools with strong PLCs foster a collaborative culture, focus on learning, promote shared responsibility, and pursue results-oriented goals and assessments to ensure student academic gains. The study investigated the use of learning teams as a preliminary strategy for PLC and to inform school-wide PLC implementation in a restructuring high school. Wenger's communities of practice theory and Dufour's professional learning community framework provided the paradigmatic perspectives underlying this research study. This mixed methods case study was conducted in one urban-suburban high school over a four-month period from March through the first week of June 2011. An eightteacher purposive sample from social studies and science comprised the learning teams. Multiple sources of qualitative and quantitative data were collected and analyzed. The study was enacted both as an action research pilot for the learning teams and as a case study examining the teachers' readiness to engage in PLC. Factors that supported and constrained the teachers' participation on the learning teams were identified, described, and analyzed. Study findings provided recommendations for school-wide PLC implementation. Overall study findings suggest that the use of learning teams offers a promising preliminary strategy for promoting secondary teachers' transition to and engaging in a professional learning community.

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Cultivating Readiness for Professional Learning Community Through Learning Teams in a Restructuring High School

By

Cassandra H. Hyacinthe

Submitted in partial fulfillment

of the requirements for the degree

Ed.D. in Executive Leadership

Supervised by

Ronald D. Valenti, Ph.D.

Committee Member

Jerry Willis, Ph.D.

Ralph C. Wilson, Jr. School of Education

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Dedication

To my mother, Helen Howell-Blackwood, for her unconditional love, support, and encouragement at every step along this arduous journey. For providing the best educational opportunities and life example of perseverance, hard work, kindness, humility, and most importantly faith in God, oneself, and family.

To my husband, Maurice K. Hyacinthe, for enduring all the challenges and trying moments that this work demanded not only of me but of my family. To my children, Alexander, Kimberly, and Kenneth, who I hope will be inspired to continue learning, growing, and pursuing their future aspirations.

To my sisters, Karen A. Howell-Toomer and Yvette L. Howell, for always listening, understanding, and pushing me forward with positive affirmations and encouragement.

To my colleagues, Cohort One, mentors, and advisors, I thank you all for carrying me through with your words of comfort, wisdom, guidance, and collective efforts. I will never forget and owe you all a debt of gratitude.

To my sisterhood of friends and source of continual strength: Betty, Judy, Yvette, Laura, Dothlyn, Annette, and the SOS Book Club.

Biographical Sketch

Cassandra Howell Hyacinthe is currently the Assistant Principal for Curriculum, Instruction, and Guidance at an urban-suburban high school in the Lower Hudson Valley, New York. Mrs. Hyacinthe attended University of Pennsylvania from 1979 to 1983 and graduated in 1983. She attended Sarah Lawrence College from 1988 to 1990 and graduated with a Master of Science in Education degree in 1990. Mrs. Hyacinthe completed the Certificate of Advanced Study in Educational Administration from the State University of New York at New Paltz, NY and graduated in December 2004. In the fall of 2004, Mrs. Hyacinthe was awarded the New York Council of School Superintendents (NYCOSS) Raymond Delaney Memorial Scholarship. She came to St. John Fisher College in the summer of 2009 and began doctoral studies in the Ed. D. Program in Executive Leadership. Mrs. Hyacinthe pursued her research in *Cultivating Readiness for Professional Learning Community through Learning Teams in a Restructuring High School* under the direction of Dr. Ronald D. Valenti, Dissertation Chair and Dr. Jerry Willis, Committee Member and received the Ed. D. degree in December 2011.

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Dr. Arthur L. Walton, Jr. and all the faculty and staff of the Ed.D. in Executive Leadership at St. John Fisher College who work to support and sustain this important and exemplary program.

Thank you.

Abstract

The traditional organizational structure of large comprehensive high schools: departmental divisions, teacher isolation, fragmented subcultures, student alienation, and competing group interests have undermined student and adult learning and have thwarted attempts at school reform. Professional learning communities (PLCs) are a promising strategy for advancing student achievement and school reform. Schools with strong PLCs foster a collaborative culture, focus on learning, promote shared responsibility, and pursue results-oriented goals and assessments to ensure student academic gains.

The study investigated the use of learning teams as a preliminary strategy for PLC and to inform school-wide PLC implementation in a restructuring high school. Wenger's communities of practice theory and Dufour's professional learning community framework provided the paradigmatic perspectives underlying this research study.

This mixed methods case study was conducted in one urban-suburban high school over a four-month period from March through the first week of June 2011. An eight-teacher purposive sample from social studies and science comprised the learning teams. Multiple sources of qualitative and quantitative data were collected and analyzed. The study was enacted both as an action research pilot for the learning teams and as a case study examining the teachers' readiness to engage in PLC.

Factors that supported and constrained the teachers' participation on the learning teams were identified, described, and analyzed. Study findings provided

recommendations for school-wide PLC implementation. Overall study findings suggest that the use of learning teams offers a promising preliminary strategy for promoting secondary teachers' transition to and engaging in a professional learning community.

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Chapter 1: Introduction

The U.S. economic crises of 2008 and 2009 heightened political attention to an underachieving American public education system and reignited the demand for large-scale school reform. School reform was at the top of the agenda in the 2008 presidential election campaign. Many candidates extolled, "Education as the civil rights issue of the 21st century." President Barack Obama demonstrated a national commitment to overhauling public schools with major financial initiatives such as the American Recovery and Reinvestment Act (ARRA, 2009) economic-stimulus funding, and the Race to the Top (RTTT) school reform grant program (Klein, 2011). At the public policy level, the federal administration's *A Blueprint for Reform* (U.S. Department of Education, 2010) outlined proposed changes for the reauthorization of the Elementary and Secondary Education Act (ESEA; 1965)—currently the No Child Left Behind Act of 2001 (NCLB; Jennings, 2010/2011).

Significant paradigm shifts and a systemic approach for improving U.S. elementary and secondary schools are required to meet the complex and demanding current wave of large-scale school reform calling for national common core standards, curricula innovation, technological advancement, college and career readiness, and decentralization away from state to local district levels (Fullan, 2011; Glickman, 2002; Wilson & Berne, 1998).

For more than three decades, among schools at all levels, American high schools have presented the greatest resistance to adapt to past and current school reform efforts

(Elmore, 2006; Jerald, 2006; Wells, 2008). The traditional organizational structure of large comprehensive high schools, with departmental divisions, teacher isolation, fragmented subcultures, alienation, and competing group interests, has undermined student and adult learning and have thwarted school improvement (Fullan, 2001, 2011; Hammack, 2004; Little, 1993, 2002a).

The new school reform movement toward *reculturing, turning around,* or *redesigning* failing schools and school districts has elevated the critical role of educational leaders and teachers for school improvement and systemic change (Karhuse, 2011; Klein, 2011; Little, 1993). Federal programs aimed at bolstering principal and teacher effectiveness have promoted external measures such as principal training academies, revamped teacher preparation programs, and updated professional development and new administrator and teacher evaluation systems (Collins, 2010; Jennings, 2010/2011).

To this end, education reformers have touted the professional learning community (PLC) as a powerful internal capacity-building model for reculturing schools (i.e., transforming individuals' attitudes, beliefs, and actions to achieve a shared purpose, and for fostering collective responsibility for school improvement; Eaker, Dufour, & Dufour, 2002; Fullan, 2001; Hord, 2009). At the high school level, teachers are isolated and divided by departmental ties and are strongly identified as *sole practitioners* and *content specialists*. Within these informal and powerful culture-shaping communities of practice (CoP) lies an untapped source of internal expertise and collective source of problem solving and potential for academic and school improvement.

Many secondary schools have begun to explore the possibility of developing a PLC through teacher teams, also referred to as *learning teams, professional learning teams,* or *collaborative learning teams* (Lieberman & Miller, 2008; McLaughlin & Talbert, 2006; Wells, 2008). Recent research studies have provided compelling evidence that teachers participating in "well-established and high functioning" PLCs create "a culture of success in schools, leading to better instruction and student learning gains" (Fulton & Britton, 2011). Assessing and addressing the readiness or willingness, commitment, and competence (Fullan, 2006, Weiner, 2009) of secondary teachers to engage collaboratively is an important first step for invoking school change and transitioning to an effective PLC.

Statement of the Problem

For this mixed methods case study, field research was conducted at Ridgeview High School (RHS; pseudonym), a high-needs, medium-sized (student population under 1,600), urban-suburban high school. Based on annual accountability measures, reported in the New York State Report Card (2009-2010), the RHS was identified as a "school-in-need-of-improvement" (SINI) and designated as "advanced restructuring" status. In May 2010 a Joint Intervention Team (JIT) site evaluation was conducted by an outside education consulting firm, along with district, and state education officials. This action represented the final step before a possible "take over" by the New York State Education Department. As a result of the JIT education audit's findings, recommendations were made for "four areas of greatest need": (1) Teaching and Learning; (2) Leadership; (3) Infrastructure; and 4) Use of Data (JIT Report, May 2010).

In the last seven years (2004–2011), there has been significant turnover in school leadership, with six changes in principalship alternating between interim and appointed positions. In August 2011 the former principal resigned and at the end of January 2011 the current principal was appointed. Organizational instability, negative community opinion, severe financial constraints, neglected physical plant, and low teacher morale have exacerbated the ability of RHS to provide high quality, academically challenging learning; raise faculty/staff morale; and maintain a safe, positive, aesthetically viable educational environment for all students.

Following the JIT review, a school leadership team was convened in July 2011 comprising representative stakeholders from the school community (administrators, teachers, and parents) to develop a school restructuring action plan. Led by an education consultant not affiliated with the JIT evaluators, the school leadership team members were divided into three small groups (Teaching & Learning; Leadership & Infrastructure; and Use of Data) to review the JIT recommendations and to develop improvement goals for the RHS restructuring action plan for each of the designated areas of concern.

Despite the development of four RHS themed-academies—Ninth Grade Academy, Communications (10th grade), Finance (10th grade), and Legal Studies (11–12th grade)—over the last two years to create "smaller learning communities" and to improve student achievement, academic gains have been minimal and have continued to fall short of standardized accountability targets. While the JIT report found that RHS teachers exhibited solid knowledge of their content-area subjects, instruction was largely teacher-directed with little active student participation. Student engagement was deemed low and the integration of instructional technology into the curriculum was deficient. The

high percentage of ninth graders repeating their freshman year (30% or more annually) has presented a persistent problem.

In response to the JIT recommendations for teaching and learning, two goals were proposed in the RHS restructuring action plan: (a) to provide professional development for teachers and staff for the acquisition and implementation of research-based instructional strategies to enhance teaching and learning, and (b) to provide time and support for teachers to adapt the strategies to the content areas (Ridgeview Restructuring Action Plan, 2010, pp. 1–4). In order to accomplish these teaching and learning goals, two action steps were recommended: (a) creating teacher learning teams, and (b) implementing a PLC. In the capacity of assistant principal for curriculum and instruction and as a doctoral candidate, I conducted an action research pilot to introduce learning teams in an effort to assess teacher readiness and to encourage teacher participation in a school wide PLC.

From the Ninth Grade Academy, two learning teams of ninth-grade teachers—science and social studies—were convened as an action research pilot to address the inquiry focus *How best to educate and support ninth graders*. From March through the first week of June 2011, fourteen 45-minute sessions were scheduled during the teachers' common planning period. Comprised of four teachers each, the social studies learning team (SSLT) and the science learning team (SLT) met weekly on Tuesdays and Thursdays, respectively. During the start-up phase, I facilitated, observed, and documented the two learning teams' group processes and participation. The intended goals were that each learning team would build positive group dynamics, develop a common purpose and shared goals, and engage in action research.

Theoretical Rationale

Wenger's (1998) *communities of practice* theoretical construct, derived from Lev Vygotsky's sociocultural theory, along with Dufour & Eaker's (2002) *professional learning community* conceptual framework, provided the theoretical perspectives and conceptual lenses for this mixed methods case study. Bandura's social cognitive theory was also important in analyzing and interpreting teachers' collective efficacy as a factor for academic achievement and school improvement.

Sociocultural theory. Originating from Lev Vygotsky's theories of learning and development, sociocultural theory proposed that learning occurs in a social world (Alfred, 2002, p. 5). While Bandura's social cognitive theory placed the individual at the center of learning, the sociocultural theory emphasized the individual within a larger sociocultural context (Alfred, 2002). The sociocultural context represents the individual's interaction with the environment—professional or educational—that impacts learning. The act of learning is socially constructed through interactions with the culture, context, and the community within which learning occurs.

Sociocultural learning theories "draw from sociology, anthropology, and a branch of psychological theory that locates human learning in social interactions, views learning as inseparable from the relation between individuals and their social, cultural, and institutional contexts"(Knapp, 2008). Sociocultural theory offers a broad lens to examine the collective interaction of individuals in relation to the interplay of situated contexts in which learning occurs and the process in which learning is enacted (Alfred 2002).

Herrenkohl (2008) described sociocultural theory as a

> generative theoretical perspective . . . [allowing] analysis of: (1) meaning as a

> central unit of analysis; and (2) relationships as the site for negotiated meaning: . . .We convey meanings to one another and work to share understanding and perspective. The success of organized efforts requires these activities. However, at the same time, we need to accommodate alternative viewpoints, innovations, and new knowledge (p. 674).

Herrenkohl further highlights the production of *texts* and *objects* that serve a dual purpose—to convey meaning and to create new meanings. As for the role of relationships and meaning, Herrenkohl discusses the negotiation that is needed to balance the tensions of *boundary objects* (texts, artifacts, and cultural tools that convey abstract ideas in concrete representations produced within an organization), *alignment* (the ways an organization ensures shared meaning across the communities that make it up, implying coordination), and *resistance* (shifts in power among participants; p. 674).

Communities of practice. Rooted in Vygotsky's early work on the social nature of learning, Lave and Wenger (1991; as cited in Knapp, 2008) developed the construct of CoP. Knapp (2008) outlined the CoP constructs that have emanated from sociocultural theory in a discussion on how they may provide a lens for district support for large-scale reform.

> *Communities of practice and joint work*—a logical context for learning is CoP, collectives in which the members share joint work and have developed a common vocabulary and repertoire for approaching this work (Lave and Wenger 1991). These collectives arise organically and reflect the lived relationships among coworkers who regularly spend time with one another.
>
> *Reification and tools*—through processes of reifying—that is, making abstract

> ideas concrete and easily accessed by others—participants in organized settings construct conceptual or material tools that define, prescribe, illustrate, or conceptualize matters of potential importance to participants in the workplace (Herrenkohl & Wertsch, 1999; Wenger, 1998). These tools or objects (documents, policies, guidance, curriculum outlines, etc.), which can be used by various organizational members, are products of participation as well as central elements in participation.
>
> *Appropriation and the transformation of participation*—Learning necessarily involves change, through processes that transform participation in activity settings.As part of this process, participants "appropriate" ideas—that is, by stages, actively internalize and embody them in daily practice (Herrenkohl and Wersch, 1999). (Knapp, 2008, pp. 527–528).

Social cognitive theory and collective efficacy. Vygotsky's sociocultural theory has influenced the work of contemporary cognitive psychologists and theoreticians. This is demonstrated in Alfred Bandura's development of social cognitive theory, the construct of collective efficacy, and its relationship to student learning and achievement. Central to social cognitive theory is the construct of human agency. Human agency is defined as "the ways that people exercise some level of control over their own lives" (Hoy & DiPaola, 2007, p. 175). Three different forms of human agency are presented in social cognitive theory: personal, proxy, and collective (Bandura, 2000). While much emphasis has been placed on personal agency as an individual exercise, proxy agency and collective agency are socially mediated. *Proxy agency* involves getting other people with certain attributes or specific power to achieve some desired outcome.

Collective agency or *collective efficacy* is an extension of human agency. It represents a shift away from individual to group control in which interdependency becomes the key motivational source of strength, purpose, effort, and the attainment of goals. In schools, collective efficacy (i.e., teachers "shared beliefs in their collective power to produce desired results") plays a central role in student achievement and school improvement (Bandura, 1993). As described by Bandura, "People's shared beliefs in their collective efficacy influence the types of futures they seek to achieve through collective action, how well they use their resources, how much effort they put into their group endeavor, their staying power when collective efforts fail to produce quick results or meet forcible opposition, and the discouragement that can beset people taking on tough social problems" (Bandura, 2000, p. 76). Changing the established norms of privacy, status quo, and a culture of isolation currently operating in high schools will depend largely on replacing the old ways of thinking and acting with new norms that value collaboration and collective responsibility.

Professional learning community. The PLC, a conceptual framework and concrete representation of a community of practice, embodies the core principles of sociocultural learning theory. Research studies have acknowledged the positive impact of PLCs as an effective school improvement strategy for building the internal capacity of administrators and teachers, fostering a collaborative school culture, and promoting a sense of collective responsibility for student learning and continuous school improvement (Eaker, Dufour & Dufour, 2002; Hord,1997, 2004; McLaughlin & Talbert, 2001, 2006; Senge et al., 2000; Wells, 2008).

According to Hord (1997, 2004), five major characteristics define the PLC model: (a) supportive and shared leadership, (b) collective learning and its application, (c) shared values and vision, (d) supportive conditions, and (e) shared personal practice. Similarly, a CoP has three major characteristics: (a) a shared domain of knowledge, (b) a community of people who care about the domain, (c) and the shared practice that they are developing to be effective in their domain. In simple terms, "communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002, p. 4).

Organizational readiness for change and professional learning communities. Despite decades of one school reform after another, reculturing the high school and achieving major fundamental changes has not been sustained (Cuban, 1998; Hammack, 2004). While external forces have been exerted to "pressure and penalize" American public schools' lack of performance, in spite of stricter public policy, regulations, and mandates, developing and supporting the "inside forces" that directly shape and impact teachers' daily work in classrooms has been neglected (Fullan, 2011; Holland, 2005; Lieberman & Miller, 2008). Fostering change that motivates and transforms people's beliefs, knowledge, and attitudes is a multilayered and complex task. It demands a more deliberate assessment and response to individual and collective issues related to "readiness to change" (Fullan, 2001; Burnes, 2004; Walinga, 2008)

Kurt Lewin promoted a three-stage change theory model: *unfreezing*, *moving* (change), and *refreezing* (Burnes, 2004). In this change theory model, unfreezing requires preparing or creating readiness for change. Moving or change requires

individuals to reject old ways of thinking and behaving. Refreezing denotes the transitioning to new beliefs, norms, attitudes, and practices. As Burnes (2004) points out, "Lewin saw successful change as a group activity, because unless group norms and routines are also transformed, changes to individual behavior will not be sustained" (p. 986). While Lewin's 3-step change theory is often attributed to the field of organizational development, the 3-step change model represented one component of his planned approach to change. Burnes (2004), responding to contemporary criticisms of Lewin's 3-step model, elaborated,

> However, it needs to be recognized that when Lewin developed the 3-step change model, he was not thinking only of organizational issues. Nor did he intend it to be seen separately from the other three elements which comprise his Planned Approach to Change (i.e. Field Theory, Group Dynamics and Action Research). Rather Lewin saw the four concepts as forming an integrated approach to analyzing, understanding and bringing about change at the group, organizational and societal levels (p. 986).

Weiner (2009) discussed organizational readiness for change as "a multi-leveled, multi-faceted construct, where readiness can be more or less present at the individual, group, unit, department, or organizational level. Readiness for change can be theorized, assessed and studied at [each] of these levels of analysis" (p. 68). Extending from the common meaning of readiness that "connotes a state of being both psychologically and behaviorally prepared to take action," Weiner defines ORC as "organizational members' *change commitment* and *change efficacy* to implement organizational change" (p. 68).

For this research study, examining how ORC issues are manifested in the learning teams provided insight and understanding of specific situational factors that motivated or detracted from full participation in the implementation of a proposed school change such as professional learning communities.

Significance of the Study

Specific attention to and strategies for cultivating teacher readiness to participate in a planned change initiative such as a PLC, particularly in high schools, is underrepresented in the literature. Walinga (2008) underscores the "implementation gap" that exists between preparation (readiness) and action (change), "Although we are closer to understanding what factors are required by an individual to move through the stages of change, it is not clear how best to facilitate this movement, or specifically what factors or processes are involved in moving an individual through the final stage of change to a point of personal transformation" (p. 320). Recent research studies and reports have confirmed the positive outcomes for student learning and capacity building where "well established and strong professional communities" are in place, but lack specifics on the "how to" for implementation (Fulton & Britton, 2011; McLaughlin & Talbert, 2001; Talbert, 2010).

A recent search in the ERIC database for 2000–2010 using the keywords: "learning communities," "teacher teams," "collaboration," "readiness to engage," "high schools," "cultivating" and "implementation" yielded 28 publications. Fifteen were journals, two were reports, eleven were dissertations, and seven were peer-reviewed journals. Findings from this study will inform practice and extend understanding for how best to promote secondary teachers' readiness to engage in professional learning

communities and to identify the supporting and constraining conditions that need to be addressed in a restructuring high school.

Purpose of the Study

The purpose of the study was to investigate the use of learning teams as a preliminary strategy for PLC and to inform school-wide PLC implementation in a restructuring high school. Underlying the research, the CoP theoretical framework provided the paradigmatic lens underlying this research study. Factors that supported and constrained the teachers' participation on the learning teams were identified, described, and analyzed. Study findings provided recommendations for supporting high school teachers' transition to and participation in school-wide PLC implementation.

Research Questions

Four research questions guided this mixed methods case study:

1. What was the process for developing the learning teams as a preliminary strategy toward PLC in a restructuring high school?
2. What start-up strategies worked well for the learning teams? What challenges were confronted?
3. What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?
4. To what extent did the learning teams function as professional learning communities?

Definition of Terms

For this study, operational definitions for the following terms include:

- *Cultivating*—providing supportive conditions and resources to address and prepare individuals' readiness issues during the transition phase from planning for to implementation of a change initiative (Wenger et al., 2002, p. 12).

- *Learning Team*—group of teachers and/or school staff who collaborate regularly in reflection, inquiry, dialogue, and problem solving in an effort to improve student academic achievement and school performance (Gallimore & Ermeling, 2010).

- *Professional Development*—opportunity to learn that enhances professional knowledge, skills, and practice to increase student learning (Killion & Roy, 2009); "a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement" (NSDC Learning Forward, 2011, para. 2).

- *Capacity-Building*—opportunities to learn and expand professional learning, knowledge, skills, and competence individually and collectively; becoming a learning organization (Fullan, 2011, Killion & Roy, 2009, Leana, 2011).

- *Shared Leadership*—creating mutual accountability through the development and distribution of leadership responsibilities and decision-making among stakeholders throughout the school organization (von Frank, 2011)

- *Communities of practice*—groups of individuals (*community*) informally connected by shared expertise (*knowledge*), interest, or passion for a joint enterprise (*practice*) (Wenger and Snyder, 2000, p. 139)

- *Professional Learning Community* (PLC)—faculty and staff engaged in a collaborative culture of professional learning, high quality teaching focused on student learning and continuous school improvement (Eaker, Dufour, & Dufour, 2002).

- *Organizational Readiness for Change* (ORC)—an organization's members' collective attitude willingness, commitment, and confidence to engage in school change (Weiner, 2009, p. 67).

- *Adequate Yearly Progress* (AYP)—the specific academic targets (e.g., English Language Arts, Mathematics, and graduation rate for high schools) that all schools are expected to meet in order to demonstrate satisfactory progress toward the goal of proficiency for all students in compliance with NCLB Act of 2001(State Report Card, New York State Education Department, 2009).

- *Restructuring high school*—school status designation assigned by the New York State Department of Education to indicate the accountability phase: Good Standing, Improvement, Corrective Action, or Restructuring. Based on meeting the AYP set for secondary level schools in English language arts (ELA), mathematics, and graduation rate (State Report Card, New York State Education Department, 2009).

Summary of Remaining Chapters

Chapter 1 describes the global and local contexts for the research problem and study to examine the readiness of high school teachers to participate on learning teams as a preliminary step towards school-wide PLC implementation. Chapter 2 provides a review of pertinent literature on important topics and issues related to this study, identifies the gaps in the research, and informs the reader of the theoretical framework and perspectives that guided this study. Chapter 3 provides an overview of the research design and methodology employed in this study. Information pertaining to the research context, research participants, data collection, data analysis, and the boundaries and factors impacting the study's timeline are explained. Chapter 4 presents the research

study findings and results organized by research questions. Chapter 5 discusses possible implications of the findings, research limitations, future recommendations, and study conclusions.

Chapter 2: Review of the Literature

In Chapter 2, the historical and political contexts for past and current school reform initiatives are described. Relevant theoretical frameworks and conceptual frameworks that have provided the lenses for this study are presented. Stemming from Vygotsky's sociocultural learning theory, a review of related theories is presented including Bandura's work in social cognitive theory and collective efficacy, the theories developed in Wenger's (1998) *Communities of Practice,* and the conceptual framework in Dufour's (2004) *What Is a Professional Learning Community*. The chapter concludes with a discussion of Lewin's 3-step change model (Burnes, 2007; 2009) and organizational readiness for change theory and how they inform PLC implementation.

Historical and Political Background: School Reform Climate

NCLB's (2001) legacy marked the beginning and the end of the new millennium's first decade. At the start of the millennium, controversy surrounded NCLB's top-down *unfunded* federal mandates to increase all students' performance levels, establish national curriculum learning standards, administer high-stakes standardized testing, and report annual school accountability results. At the close of the decade, NCLB will be reformatted and renamed with the impending reauthorization of the former Elementary and Secondary Education Act (Jennings, 2010/2011). The United States Department of Education has released its blueprint outlining proposed changes: "The central goals on school accountability measures and improving student performance will be maintained, while controversial aspects of the law—schools' adequate yearly

progress (AYP) targets and the 2014 deadline for achieving proficiency in reading and math will end" (Klein & McNeil, 2010).

In contrast to past education reforms, the demands of the new reform initiatives stem from a competitive gap to meet the complex educational changes needed to prepare students for today's technologically driven knowledge economy (Borman et al., 2003, Little, 1993, 2002). Current comprehensive reform initiatives have retained federal top-down external pressure and demand for restructuring while simultaneously shifting greater responsibility, decision making, and resource allocations to states and local education agencies. Federal stimulus funding such as the American Recovery and Reinvestment Act (ARRA; 2009); competitive grants such as Race to the Top (RTTT); and Investing in Innovation grant programs represent current financial resources promoting large-scale efforts for education change (Dillon, 2009; Klein, 2011).

In the movement toward restructuring, turning around, or redesigning failing schools and school districts, the role of educational leaders and teachers as critical to school improvement and systemic change has been emphasized (Karhuse, 2011; Klein, 2011; Little, 1993). Federal programs aimed at bolstering principal and teacher effectiveness have promoted external measures such as principal training academies, revamping teacher preparation programs, professional development, and new evaluation systems (Jennings, 2011; Karhuse, 2011; Klein, 2011).

High school reform movement. Since the 1983 *Nation at Risk* report, calls for high school reform have been largely unmet and resistance to adapt to past and current school reform efforts has persisted (Elmore, 2006, Hammack, 2004; Wells, 2008). The traditional organizational structure of large comprehensive high schools—departmental

divisions, teacher isolation, fragmented subcultures, student alienation, and competing group interests—has undermined student and adult learning and school improvement (Hammack, 2004; Little, 1993, 2002). At the high school level, teachers strongly identify themselves as *sole practitioners* and *content specialists* and have strong loyal allegiances to subject departments. In the current school reform climate, the teaching profession is under heavy scrutiny. Outside efforts to force school change have come in the form of public attacks against tenure and teacher unions (Leana, 2011). Despite the tightening of external accountability measures and the emphasis on professional development and training, positive effects on increasing student learning have not been fully realized. Lieberman and Miller (2008) caution that "there is a mistaken belief that teachers can increase their effectiveness and deepen their practice outside of the professional communities to which they belong" (p. 1).

Education research literature has promoted the PLC as an effective strategy for capacity-building, reculturing schools, and transforming individuals' attitudes, beliefs, and actions around shared vision, mission, values, and goals to raise student learning and to foster collective responsibility for school improvement (Eaker et al., 2002; Fullan, 2001; Hord, 1997, 2004; Hord & Sommers, 2008; Killion & Roy, 2009; McLaughlin & Talbert, 2001, 2006; Wells, 2008;). Secondary schools have begun to explore the possibility of PLCs, through the use of teacher teams, also referred to as *learning teams, professional teacher teams,* or *collaborative learning teams* as a way to initiate collaborative culture, encourage professional learning, and enhance student performance (Carroll & Doerr, 2010; Chappuis, Chappuis & Stiggins, 2009; Fulton, & Britton, 2011).

While research studies have acknowledged the positive outcomes that result from successful implementation of PLCs for student achievement and teacher professional development, there is a lack of research on how best to initiate the transition" (Eaker et al., 2002; Hord, 1997, 2004; McLaughlin & Talbert, 2001, 2006; Talbert, 2001; Wells, 2008).

Professional learning and school reform. The status of professional development has been elevated on the public education reform agenda. Affording teachers' opportunities to learn, inquire, collaborate, and grow intellectually and professionally are important steps toward improving teachers' practice and effectiveness. President Obama outlined four priority areas in *A Blueprint for Reform* (U.S. Department of Education, 2010) regarding proposed changes for the reauthorization of the ESEA, a.k.a., NCLB.

For this study, the first priority is especially relevant, "We must foster school environments where teachers have the time to collaborate, the opportunities to lead, and the respect that all professionals deserve" (U.S. Department of Educations, 2010, "A Letter from the President," para. 6) In contrast to past school reform, new efforts demonstrate lessons learned from the past failed attempts at overhauling American public schools. Now there is greater understanding that school reform must ensure school capacity. King and Newmann (2000) promote three dimensions for capacity building: (a) teachers' knowledge, skills, and dispositions; (b) the strength of school-wide professional community; and (c) the coherence of the school program.

New professional development standards have emerged challenging the "dominant training model" directed at individual skill development and urging an

updated model directed toward collective capacity building and increasing social capital (Fullan, 2011; Leana, 2011; Little, 1993).

> This aspect of reform calls not for training, but for adequate opportunity to learn (and investigate, experiment, consult, or evaluate) embedded in the routine organization of teachers' workday and work year. It requires the kinds of structures and cultures, both organizational and occupational, compatible with the image of *teacher as intellectual* (Giroux, 1988) rather than *teacher as technician*. And finally, it requires those teachers and others with whom they work to enjoy the latitude to invent local solutions—to discover and develop practices that embody central values and principles, rather than to implement, adopt, or demonstrate practices thought to be universally effective (Little, 1993, p. 133).

Little (1993) delineated six professional development principles for meeting the complex and ambitious demands of present school reforms:

1. Professional development [offering] meaningful intellectual, social, and emotional engagement with ideas, with materials, and with colleagues both in and out of teaching.
2. Professional development [taking] explicit account of the contexts of teaching and the experience of teachers.
3. Professional development [offering] support for informed dissent (i.e., embracing conflict by structuring devil's advocate roles and arguments).
4. Professional development [placing] classroom practice in the larger contexts of school practice and the educational careers of children.

5. Professional development [preparing] teachers (as well as students and their parents) to employ the techniques and perspectives of inquiry.
6. [Professional development] governance [ensuring] bureaucratic restraint and a balance between the interests of individuals and the interests of institutions. (pp. 138–139)

Professional learning community: Professional development for change. Education research has documented the benefits of PLC as an effective school restructuring strategy for creating collaborative cultures where teachers and administrators focus on improving student learning and sharing responsibility for continuous school improvement (Eaker et al., 2002; Hord,1997, 2004; McLaughlin & Talbert, 2001, 2006; Senge et al.,2000; Wells, 2008).

In the science, technology, engineering, and mathematics (STEM) subjects, two recent longitudinal studies reported "compelling evidence that when teachers team up with their colleagues they are able to create a culture of success in schools, leading to teaching improvements and student learning gains" (National Commission on Teaching and America's Fulton & Britton, 2011, p. 4). After examining close to 200 STEM education research articles and reports, the authors proposed that providing teachers with the support, opportunities to learn, collaborate, and problem solve is not only beneficial to their professional learning and practice but had a deliberate impact on student learning. The report goes further to suggest that "learning teams can be an effective professional development model for all STEM teachers educating all types of students. PLCs can be particularly helpful for teachers in schools and districts that serve diverse student

populations" (p. 10). They caution and emphasize that the research findings were drawn from *well-designed* and *highly functioning* STEM learning teams (p. 10).

O'Neill and Conzemius (2002; as cited in Robbins & Alvy, 2009) make the case that "schools showing continuous improvement in student results are those whose cultures are permeated by: shared focus; reflective practices; collaboration and partnerships; and an ever increasing leadership capacity" (p. 15) characterized by "individuals who focus on student learning, reflect on student assessments, and learn as a collaborative team" (p. 17). McLaughlin and Talbert (2006) contend that "the ultimate payoff of teachers' learning opportunities depends upon teachers' opportunities and commitment to work together to improve instruction for the students in their school" (p. 3). School-based teacher learning communities or PLCs may have different configurations and operate at multilevels within a school: departmental, grade level, interdisciplinary, and school wide (DuFour & Eaker, 1998; McLaughlin & Talbert, 2006; Talbert, 2010).

Shared leadership for school improvement. Distributed leadership is currently challenging and transforming the school leadership paradigm. Principals who are open to engaging teachers and staff to share leadership roles facilitate professional learning and collective responsibility for school improvement (King & Newmann, 2000; Sergiovanni, 2004). The school leadership team is perhaps one strategy that may have significant impact on bringing key individuals together in a constructive way to identify obstacles to student learning and academic achievement (von Frank, 2011). As a team, school community members are empowered to inquire, dialogue, problem solve, and coordinate possible plans of change or deliberate action (Hallinger, 2003; Harris, 2004).

Principals open to shared leadership encouraged team collaboration that was interdependent and mutually supportive and promoted a community centered on professional learning and collective responsibility. Through active participation on PLCs, faculty and staff were encouraged to identify weaknesses, obstacles, and to seek solutions for problems impeding students' personal development and academic achievement. This collaborative approach offered an effective strategy for building a cohesive operational structure that supported the changing dynamics of school leadership as *distributed* or *shared* among faculty and staff (Harris, 2004; Normore, 2004).

Instructional leadership was deemed as the paramount factor for high performing schools identified during the effective schools research in the 1980s. Despite findings from the effective schools research, there has been little substantive change in public high schools. Local, state, and federal school report cards and statistical data have continued to bemoan the growing number of underperforming student subgroups (e.g., ninth graders, special education, ESL, racial/ethnic gaps), increasing dropout rates, and declining graduation rates. Followed by the *school restructuring* focus during the 1990s, this term has evolved as new concepts of school leadership emerged: shared leadership, distributed leadership, teacher leadership, and transformational leadership (Hallinger, 2004).

Reflected in this shift is the understanding that school improvement linked to one individual is ineffective and unrealistic given the many competing managerial, social, and political roles that principals' juggle (Fullan, 2011; Sergiovanni, 2004). Instead, a growing number of researchers have promoted broader capacity building through shared or distributed leadership as the best practice to invite and empower school leaders among faculty and staff.

Leithwood and Riehl (as cited in Harris, 2004), noted that research has suggested that the "effects of leadership on student learning are small but educationally significant" (p. 3). At the same time, a growing body of research is focusing on capacity building as a way to increase social capital within an organization as an effective means to distributing leadership (Fullan, 2011; Leana, 2011). Spillane et al (2001) emphasized, "Distributed leadership is a form of collective agency incorporating the activities of many individuals in a school who work at mobilizing and guiding other teachers in the process of instructional change. By supporting and encouraging the formal leadership role of teachers as department heads, lead teachers, team leaders or teacher mentors, the distributed model empowers and leads to professional development and growth within the local organization" (p. 12). Harris (2004) highlights an important goal of distributed leadership outcomes for teacher participation:

> The important delineation between forms of team-working, collegiality, collaboration and distributed leadership is the fact that distributed leadership *results from the activity*, that it is *a product of conjoint activity such as network learning communities, study groups, inquiry partnerships, and not simply another label for the activity* [italics added]. (p.15)

Murphy concluded in his discussion of reculturing the educational leadership profession, "Leaders need to adopt strategies and styles that are in harmony with the central tenets of the heterarchical school organizations they seek to create. They must learn to lead not from the apex of the organizational pyramid but from the web of interpersonal relationships—with people rather than through them. Their base of influence must be professional expertise and moral imperative rather than line authority.

They must learn to lead by empowering rather than by controlling others" (Murphy, 2002, p. 188).

Theoretical Implications

Sociocultural and social cognitive learning theories. Lev Vygotsky's sociocultural learning theory has provided this study's theoretical foundation. The CoP and PLC concepts are two concrete representations of sociocultural theory-in-action. Vygotsky is recognized for his "emphasis on the unique qualities of our species, how as human beings we actively realize and change ourselves in the varied contexts of culture and history" (John-Steiner & Souberman, 1978, p. 131). In *Mind and Society*, Vygotsky's work is distinguished from research attempting to link human development to research on the social organizations of animals. As John-Steiner & Souberman point out, Vygotsky emphasizes the "unique qualities of our species. . . . In the development of higher functions—that is, in the internalization of the processes of knowing—the particulars of human social existence are reflected in human cognition: an individual has the capacity to externalize and share with other members of her social group her understanding of their shared experience" (p. 132).

Sociocultural theory has influenced the work of contemporary cognitive psychologists and theoreticians. This is demonstrated in Alfred Bandura's development of social cognitive theory, the construct of collective efficacy, and its relationship to student learning and achievement. Central to social cognitive theory is the construct of human agency. Human agency is defined as "the ways that people exercise some level of control over their own lives" (Goddard, Hoy, & Hoy, 2000, p. 480). Three different forms of human agency are presented in social cognitive theory: personal, proxy, and collective

(Bandura, 2000). While much emphasis has been placed on personal agency as an individual exercise, proxy agency and collective agency are socially mediated. Proxy agency involves getting other people with certain attributes or specific power to achieve some desired outcome.

Collective agency or *collective efficacy* is an extension of human agency. It represents a shift away from individual to group control in which interdependency becomes the key motivational source of strength, purpose, effort, and the attainment of goals. In schools, collective efficacy, (i.e., teachers' "shared beliefs in their collective power to produce desired results," Bandura, 2000, p. 76) plays a central role in student achievement and school improvement (Bandura, 1993). As Bandura explained, "People's shared beliefs in their collective efficacy influence the types of futures they seek to achieve through collective action, how well they use their resources, how much effort they put into their group endeavor, their staying power when collective efforts fail to produce quick results or meet forcible opposition, and the discouragement that can beset people taking on tough social problems" (Bandura, 2000, p. 76). Changing the established norms of privacy, status quo, and a culture of isolation currently operating in high schools, will depend largely on replacing the old ways of thinking and acting with new norms that value collaboration and collective responsibility.

Bandura (as cited in Goddard, Hoy, & Hoy, 2000) contended that collective efficacy is an important school property and that efforts to develop high levels of collective efficacy are difficult but not impossible. Successful implementation of a PLC may serve as a strategic catalyst for increasing collective efficacy, and in turn, improving student learning and achievement. For this study, the Collective Efficacy Scale (12-item

Short Form; Goddard & Hoy, 2003) was administered to the eight learning team teachers to assess their level of "shared perceptions of teachers in a school that the efforts of the faculty as a whole will have positive effects on students."

Bandura further concluded that findings from many studies "show that the higher the perceived collective efficacy, the higher the groups' motivational investment in their undertakings, the stronger their staying power in the face of impediments and setbacks, and the greater their performance accomplishments" (p. 78). This conclusion offers powerful promise for the capacity of schools and the individuals charged with improving student learning, the potential to implement change that will ensure successful educational outcomes for all students.

Communities of practice. Introduced by Jean Lave and Etienne Wenger (1991), the authors present the following CoP definition (from Synder et al., 2003, p. 17):

> Communities of practice are 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.' They operate as 'social learning systems' where practitioners connect to solve problems, share ideas, set standards, build tools, and develop relationships with peer and stakeholders . . . [They] feature peer-to-peer collaborative activities to build member skills and steward the knowledge assets of organizations and society.

Given this definition, Koliba and Gajda (2009) proposed that CoP is a "potentially powerful unit of analysis that situates the role of organizational learning, knowledge transfer, and participation among people as the central enterprise of collective action. Therefore, CoP may be used across a broad spectrum of disciplines and professions to

describe and signify groups of people working to achieve common goals and objectives" (p. 119). In this regard, CoP theory offers a transdisciplinary framework to describe the dynamics of interpersonal collaboration and as an intervention strategy to promote organizational change (Koliba and Gajda, 2009).

Denscombe (2008) advocated that Communities of Practice (CoP) is best suited to become the paradigmatic lens for mixed methods research. In social research, the mixed methods approach has gained legitimacy as a "third paradigm" (Johnson, Onwuegbuzie, & Turner, 2007, p.112 as cited in Denscombe, 2008). Accordingly, Denscombe suggested that despite the acceptance of the mixed methods approach, there remain "a number of variations and inconsistencies within the mixed methods research design" (p. 270). As such, Denscombe proposed that CoP offered a "paradigm that (1) is consistent with the pragmatist underpinnings of the mixed methods approach, (2) accommodates a level of diversity, and (3) has good potential for understanding the methodological choices made by those conducing mixed methods research" (p.270). This observation is offered not as criticism to the mixed methods approach, but to advocate for the notion of "research paradigm" that acknowledges and validates variation and inconsistencies as an inherent aspect of the paradigm itself. Denscombe contended that CoP as mixed methods paradigm encompassed "flexibility, permeability, and multilayered nature to reflect the reality of social research in the 21st century" (p. 271). Koliba and Gajda (2009) proposed that researchers "consider the prospects for developing CoP as an empirically sound intermediate unit of analysis, and discussed the need for deeper theoretical development of the construct" (p. 97).

Organizational readiness for change and professional learning community implementation. The organizational context in which high school teachers' operate is important to understand for initiating the transition from working in isolation to collaborative participation in a PLC. Secondary teachers tend to view themselves as subject specialists charged with covering a curriculum rather than focusing on the total learning process. They expect students will arrive with the foundational knowledge, skills, composure, and attitude ready to master their course of study. Despite these views, local, national, and international reports of secondary students' low academic performance, high dropout rates, and outright failure in reading and mathematics continue to depict the devastating realities of many high school students' school experience (Quint et al, 2008, MRDC report).

Other instructional and school challenges point to outdated structures (e.g., use of time, fragmented scheduling, length of school year, reliance on "chalk and talk") that have not adapted to the learning needs and styles of a new generation of adolescents whose chief communication and learning modes are heavily influenced by social media. Individually and collectively, teachers, administrators, parents and the general community cling to a nostalgic image of the comprehensive high school that has dominated public opinion for more than a century. Breaking through institutionalized conceptions of high school; meeting the needs of an increasingly diverse student population; engaging adolescents in authentic, relevant learning; providing teachers with the new knowledge, updated skills, and professional learning opportunities, mandates large-scale systemic change.

Despite decades of one school reform after another, reculturing the high school and achieving major fundamental changes has not been sustained (Cuban, 1998; Hammack, 2004). While external forces have been exerted to "pressure and penalize" American public schools' lack of performance in spite of stricter public policy, regulations, and mandates, developing and supporting the "inside forces" that directly shape and impact teachers' daily work in classrooms has been neglected (Fullan, 2011; Holland, 2005; Lieberman & Miller, 2008). Fostering change that motivates and transforms people's beliefs, knowledge, and attitudes is a multilayered and complex task. It demands a more deliberate assessment and response to individual and collective issues related to "readiness to change" (Burnes, 2004; Fullan, 2001; Walinga, 2008)

Kurt Lewin proposed a three-stage model of change—unfreezing, moving, freezing (Burnes, 2007; 2009). The unfreezing stage represents the preparation or cultivating readiness for change stage. It requires individuals to evaluate their existing beliefs and attitudes and motivates them to consider new ways of thinking and acting. It requires leaders to assess the level of awareness, value, commitment, and sense of confidence the targeted individuals involved have to make the proposed change (Wallinga, 2009).

In contrast to individual readiness to change, extensive research studies and theoretical development of the organizational readiness for change (ORC) construct have not been conducted (Weiner, 2009; Wallinga 2009). Change facilitators are encouraged to assess and to address issues of readiness to change as a critical step toward successful change implementation (Weiner, 2009). Weiner (2009) has sought to define and provide a theory for organizational readiness for change. As such, Weiner has drawn from

Bandura's goal commitment and collective efficacy theories to build the ORC theory. He has defined ORC as "a multi-level, multi-faceted construct . . . [that] refers to organizational members' change commitment and change efficacy to implement organizational change" (p. 68).

Members demonstrate *change commitment* through "shared resolve to pursue the courses of action involved in change implementation" and *change efficacy* is demonstrated through "shared beliefs in their collective capabilities to organize and execute the courses of action involved in change implementation" (Weiner, 2009, p. 68). Further, ORC may be described from a psychological (cognition, behavior) or structural (financial, material, human, and informational) context (p. 69). Weiner demonstrates the interrelatedness of these two contexts. Accordingly, he proposed that implementation capability is dependent on individuals' change valence (sense of value and worthiness for change) and informational assessment derived from how members interpret three determinants: *task demands* (What will it take to make the change?), *resource perceptions* (Do we have the sufficient resources to support change?), and *situational factors* (Is the proposed change needed?; p. 70). Weiner concluded, "It seems preferable to regard organizational structures and resource endowments as capacity to implement change rather than readiness to do so" (p. 73). In other words, Weiner is highlighting the psychological aspect of readiness focused on the end goal: awareness, knowing, willingness, and commitment to enacting a new idea, initiative, or innovation versus the structures and resources that provide the concrete tools and pathways that serve as the means.

Chapter Summary

Public school education, particularly, in poor, urban or rural districts has failed to provide all students with a rigorous, relevant quality education to meet the evolving needs and demands of the 21st century workforce and economy. Sustaining free, open, public schools that serve all students well will greatly depend on coherence at the school district, state education, and federal education department levels and their ongoing commitment to developing and building the collective capacity of schools to learn, collaborate, and improve continuously.

Education studies have promoted PLC as a powerful internal capacity-building model for "reculturing" schools, transforming individuals' attitudes, beliefs, and actions to achieve a shared vision, goals, and to foster collective responsibility for school improvement (Fullan, 2001, 2011; Lieberman & Miller, 2008; McLaughlin & Talbert, 2006). Professional development drawing on and nurturing the existing communities of practice among colleagues in schools provides an effective way to promote instructional and school improvement to ensure student achievement (Dufour & Eaker, 1998; Sergiovanni, 2004).

Teacher learning teams offer a promising vehicle to move secondary schools away from isolation and towards a collaborative learning community (Fulton & Britton, 2011; Jacobson, 2010). For this research study, examining the readiness issues that were manifested in the learning teams provided insight and better understanding of specific situational factors that may have motivated or detracted from the teachers' full participation in the implementation of a proposed school change such as professional learning communities.

In the next chapter, the research design and methodology are presented. Details regarding the research context, participants, and procedures used for data collection and analysis are discussed.

Chapter 3: Research Design and Methodology

Chapter 3 will explain the rationale for the mixed-methods case study employed for this research study. This will be followed by a description of the study's research context, participant selection research criteria, the data collection and data analysis procedures used. The chapter will conclude with a summary.

A mixed methods case study was conducted to investigate the use of learning teams as a preliminary strategy for PLC and to inform school-wide PLC implementation in a restructuring high school. Underlying the research, the CoP theoretical framework provided the paradigmatic lens guiding this study. Factors that supported and constrained the teachers' participation on the learning teams were identified, described, and analyzed. Study findings provided recommendations for supporting high school teachers' readiness for and transition to school-wide PLC implementation.

Four research questions guided this study:

1. What was the process for developing the learning teams as a preliminary step toward PLC implementation in a restructuring high school?
2. What start up strategies worked well for the learning teams? What challenges were confronted?
3. What were the readiness issues for teachers accustomed to working in isolation to engage on learning teams?
4. To what extent did the learning teams function as professional learning communities?

General Perspective

For this study, a mixed methods case study research design was employed to provide a broad, multi-layered description of two high school learning teams. Lave and Wenger's (1998) CoP theoretical construct guided this mixed method design. The CoP paradigm for interpreting the data emerges from a social constructionist lens—meaning is constructed through the participation and interactions of the researcher and the participants (Creswell, 2009; Koliba & Gajda, 2009). Introduced by Jean Lave and Etienne Wenger (1991), Wenger defined CoP as (as cited in Koliba & Gajda, 2009):

> Communities of practice are 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis.' They operate as 'social learning systems' where practitioners connect to solve problems, share ideas, set standards, build tools, and develop relationships with peer and stakeholders . . . [They] feature peer-to-peer collaborative activities to build member skills and steward the knowledge assets of organizations and society (Snyder et al., 2003, p. 17).

Koliba and Gajda proposed that CoP is a

> potentially powerful unit of analysis that situates the role of organizational learning, knowledge transfer, and participation among people as the central enterprise of collective action. . . . Therefore, the term CoP may be used across a broad spectrum of disciplines and professions to describe and signify groups of people working to achieve common goals and objectives. . . . CoP has emerged as a truly transdisciplinary framework, employed both as a descriptive and

> proscriptive construct. . . . CoPs are increasingly being used as an analytical framework to describe the dynamics of interpersonal collaboration and as an intervention strategy to promote organizational change. (pp. 118–119)

Denscombe (2008) advocated that CoP is best suited to become the paradigmatic lens for mixed methods research. In social research, the mixed methods approach has gained legitimacy as a "third paradigm" (Johnson et al., 2007, p.112 as cited in Denscombe, 2008). Accordingly, Denscombe suggested that despite the acceptance of the mixed methods approach, there remain a number of variations and inconsistencies within the mixed methods research design. As such, Denscombe proposed that CoP offered "a paradigm that (1) is consistent with the pragmatist underpinnings of the mixed methods approach, (2) accommodates a level of diversity, and (3) has good potential for understanding the methodological choices made by those conducing mixed methods research" (p. 270). This observation is offered not as criticism to the mixed methods approach, but to advocate for the notion of "research paradigm" that acknowledges and validates variation and inconsistencies as an inherent aspect of the paradigm itself. . . . [CoP as a mixed methods paradigm encompassed] flexibility, permeability, and multilayered nature to reflect the reality of social research in the 21st century" (p. 271).

Three assumptions grounded this research study: (1) teachers' professional learning and capacity is developed best in a social, collaborative culture, (2) the opportunity for secondary teachers to define the learning team experience is crucial, and (3) the use of learning teams addresses teachers' readiness to change by providing a transitional strategy to PLC.

Case study methodology. The case study is an appropriate methodology for exploring an in-depth investigation of an issue experienced through one or more cases within a bounded system (i.e., a setting, a context; Creswell, 2007, p. 73). The use of "what" questions justifies an exploratory case study that attempts to investigate the process and meaning of an intervention. A second criterion that deems case study methodology applicable is that the researcher has little control over the behavioral events that occur in a contemporary real-life setting. For this study, a "nested" case study design will allow the researcher to examine 2 ninth-grade learning teams to better understand teachers' readiness to change, and the processes experienced by and factors needed to support high school teachers' full engagement in a PLC. The case study was bounded in one high school and limited to a four-month period from March through June 2011. Yin (2009) suggested six primary sources of evidence for case study research: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts.

Action research methodology. The concept of action research originated from the early works of John Dewey in the 1920s and Kurt Lewin in the 1940s. Stephen Corey and colleagues at Teachers College of Columbia University are credited for introducing action research to the educational community in 1949 (Herr & Anderson, 2005). Corey (1953) defined action research as the process through which practitioners studied their own practice to solve their personal practical problems (Johnson, 1993). Action research supported this inquiry-based case study and facilitated the active participation of teachers in action research cycle of "problem identification, systematic data collection, reflection, analysis, data-driven action, and finally, problem redefinition" (Johnson, 1993).

Participant action research (Herr & Anderson, 2005) allowed the researcher, who assumed "insider positionality" to directly facilitate the learning team meetings and to directly observe the processes and group dynamics. Action research served to focus the LTs inquiry and professional learning on their immediate professional development needs as related to the contexts of their classroom practices in the Ninth Grade Academy.

Research Context

Located in New York's Lower Hudson Valley, Ridgeview High School (RHS ; pseudonym) is a medium-size comprehensive urban-suburban secondary school with an ethnically diverse student population. This research study took place in a high school currently in the midst of school restructuring. Over the last seven years (2004–2011) there has been significant turnover in school leadership, with six principals alternating between assigned interim and appointed positions. In August 2011, the former principal resigned and at the end of January 2011, the current principal was appointed. Organizational instability, negative community support, severe financial constraints, and low teacher morale have exacerbated the ability of the school to provide high quality, academically challenging learning and to maintain a safe, positive, aesthetically viable educational environment for all students.

In May 2010, the high school underwent a JIT education audit. Prior to the JIT site evaluation, the high school had been in various stages of restructuring for the last eight years. Based on 2009-2010 NYS Report Card data, the high school failed to meet AYP standardized performance targets for the following student groups in English Language Arts (All Students; African American/Black); Mathematics (African American/Black). As a result, the high school was designated as a SINI and placed in the

Advanced Restructuring category. This designation represented a final step before possible "takeover" by New York State Department of Education. RHS demographic and academic data reported in the New York State School Report Card (2009-2010) is provided in Table 3.1.

Table 3.1

Ridgeview NYS State Report Card Demographic and Academic Information

Demographic Factors	2007-08		2008-09		2009-10	
	n	%	*n*	%	*n*	%
Race/Ethnic Origin						
American Indian or Alaska Native	3	0	2	0	1	0
Black or African American	1,656	83	1,608	84	1,245	81
Hispanic or Latino	233	12	222	12	219	14
White	80	4	62	3	46	3
Asian, Native Hawaiian or Other Pacific Islander	16	1	19	1	21	1
Eligible for Free Lunch	786	40	872	46	835	55
Eligible for Reduced-Price Lunch	195	10	197	10	173	11
Academic Factors						
English Language Arts AYP	Not met		Not met		Not met	
Mathematics AYP	Not met		Not met		Not met	
Graduation Rate AYP	Not met		Not met		Not met	

Findings from the JIT education audit led to several recommendations in four key areas: (a) Teaching & Learning; (b) Leadership; (c) Infrastructure; and (c) Use of Data (JIT Report, May 2010). Following the JIT Review, a school leadership team was

convened comprising representative stakeholders from the school community (administrators, teachers, and parents) to develop a school improvement action plan. An outside educational consultant firm was hired to facilitate the team's work. School leadership team members were divided into three small groups (Teaching & Learning; Leadership; Infrastructure; and Use of Data) to review the JIT recommendations and develop respective goals for each of the targeted areas.

One finding in the JIT Report cited that teachers exhibited solid knowledge of content-area subjects; however, the instructional delivery remained largely teacher-directed with little active student participation. Another JIT finding focused on low student engagement and the inadequate integration of technology into the curricula. In response, the Teaching & Learning small group proposed two goals: (a) to provide professional development for teachers and staff to support the acquisition and implementation of research-based instructional strategies to enhance teaching and learning, and (b) time and support for teachers to adapt the instructional strategies into the content areas (RHS Restructuring Plan, 2010, 1–4.) Additionally, two key components of the restructuring action plan suggested establishing teacher learning teams and implementing a PLC as strategies to improve student learning.

Research Participants

In the fall of 2008, I moved from a district elementary school to the RHS and was reassigned as assistant principal of the Ninth Grade Academy. Over the course of the first year at RHS, it became evident to me that a large number of ninth graders were experiencing difficulty with the transition from middle school to high school. According to district data, 331 students (or 43% of ninth graders) failed to advance to 10th grade by

the end of the school year in June 2009. They were labeled "repeaters," and would have to retake or repeat failed ninth-grade core courses (English, science, social studies, and mathematics).

As a result for the 2009-2010 (AY), the Renaissance Academy was established to accommodate the growing number of students repeating 9th and 10th grade. In addition to the Ninth Grade Academy and the Renaissance Academy, three small learning academies were started: Communications (10th grade), Finance (10th grade), and Legal Studies (11–12th grade). Despite the reorganization into academies over the two-year academic period (2009–2011) to create "small learning communities" and to improve student achievement, academic gains remained minimal and continued to fall short of standardized accountability targets.

Originally, the action research pilot was scheduled to begin in January 2011. This was delayed by several school events including the hiring and start of a new principal at the end of January 2011. There were 36 faculty and staff designated to the Ninth Grade Academy. The population included 1 administrator, 2 school counselors, and 33 teachers (core content-area subjects, physical education, music, and art). Of the 36 faculty and staff, I targeted approximately 16 core subject teachers, representing the English language arts, mathematics, science, and social studies, to participate in an action research pilot to investigate *How best to educate and support ninth grade*. The action research pilot presented an opportunity to initiate two learning teams. A purposeful sample of eight teachers formed the two learning teams. Each learning team was comprised of four teachers and represented the social studies learning team (SSLT) and the science learning team (SLT).

From March through the first week of June 2011, fourteen 45-minute sessions were scheduled during the teachers' common planning period. The SSLT and the SLT met weekly on Tuesdays and Thursdays, respectively. During the 14-week period, I facilitated, observed, and documented the two learning teams' group processes and participation. The intended goals were that each learning team would build positive group dynamics, develop a common purpose, identify shared goals, and engage in collaborative inquiry, dialogue, and problem-solving.

Data Collection Instruments

Qualitative and quantitative data were collected for this mixed-methods case study. Yin (2009) suggested six primary sources of evidence for case study research: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts (p. 101). Triangulation of data included a research journal, participant observations, and semi-structured one-to-one interviews.

Qualitative data collection included *documentation* (learning team meeting agendas, meeting notes, attendance sheets, interview transcripts, research journal, school reports, research articles), *participant observations*, and various *physical artifacts* (protocols, charts, worksheets, articles).

Four surveys provided additional descriptive and quantitative data: (a) Collaboration Survey (Killion & Roy, 2009); Learning Team Survey (National Staff Development Council [NSDC], 2001); The Group Attitude Scale (Evans & Jarvis, 1986), and the Collective Efficacy Scale—short form (Goddard & Hoy, 2003).

Collaboration Survey and Learning Team Survey. Developed by the NSDC, the Collaboration Survey and the Learning Team Survey were created as part of the

resource guide, *Collaborative Professional Learning in School and Beyond: A Tool Kit for New Jersey Educators*. Both surveys have established content and face validity as published documents and from widespread national use as professional development resources. In 2009, NSDC published *Becoming a Learning School* (Killion & Roy, 2009), which has a companion CD containing professional learning tools and resources. Funding from a generous MetLife Foundation grant supported the development and dissemination of *Becoming a Learning* S*chool*. As a result, NSDC was able to engage nine pilot schools in Texas and to convene a seven-member national advisory team to offer guidance, feedback, and expertise in the production of this resource guide with revised and updated resources to "implement and support collaborative professional learning teams in every school focused on improving student learning" (p.2). Results from these surveys provided general descriptive data that was self-reported to gain insight into the teachers' feelings and assessments regarding collaboration and learning team participation.

Collaboration Survey. This 5-item survey (Killion & Roy, 2009) is based on a 5-point Likert-type scale (*strongly agree* to *strongly disagree*) and was used to assess the current reality level of teacher collaboration for each learning team at two intervals, in March and at the end of the 14-week period, in June 2011. Five collaborative items were assessed: (a) teacher collaboration on routine tasks, (b) professional development focused on student learning needs, (c) use of teacher teams for professional development, (d) professional development occurring at school site, and (e) teacher teams meeting regularly.

Learning Team Survey. The Learning Team Survey (NSDC, 2001)was administered at the end of the 14-week period in June 2011. The Learning Team Survey consists of four open-ended questions: (a) How many times [teacher] met with the learning team?; (b) What, if any, are the positive impacts of these meetings on you personally?; (c) What, if any, are the negative impacts of these meetings on you personally?; (d) Of the teachers on your learning team, how many do you think believe the learning team approach has significant potential to help teachers improve students' motivation and performance? The remaining seven closed-ended sections employ rating scales (1–5 or 1–10, etc.) ranging from least to greatest ratings. Item topics survey teachers' assessment of: (a) learning team meetings; (b) benefits; (c) activities/tasks; (d) teacher growth & development; (e) teacher practice outcomes; (f) personal professional outcomes; (g) work environment.

Group Attitude Scale. The Group Attitude Scale (Evans & Jarvis, 1986) is a 20-item scale that was used to measure attractiveness to the group (group cohesiveness). This self-report instrument was administered to the two learning teams at the end of the 14-week period in June 2011.

Evans and Jarvis (1986) define *attraction to group* as an individual's desire to identify with and be an accepted member of the group. The Group Attitude Survey is intended to measure collective feelings about a group rather than behavior in the group. Given this purpose, Evans and Jarvis selected a self-report inventory for the survey. For initial development, a review of literature on group attraction was conducted and 40 items were produced based on guidelines established that matched the group attraction definition. Twenty doctoral students enrolled in an advanced group procedures course

were solicited to provide critique and feedback on the selected 40 items. After preliminary revisions, the Group Attitude Survey was piloted with 178 members in 26 groups. Data resulting from the pilot led to the selection of the final 20-item Group Attitude Survey. Subsequent administration of the survey in three different studies yielded a strong internal consistency, based on coefficient alpha scores ranging from .90 to .97. These results confirmed validity of the Group Attitude Survey instrument.

The reliability was established in the three studies as a result of Group Attitude Survey administration at early, midway, and late stages of the each group's growth. Data from each group was compared to a corresponding process consultant's responses. Significant correlation was established between the two sources of feedback on the groups' levels of attraction to group. In addition, the data strongly correlated to scores on the cohesion subscale of the Group Environment Scale (Moos et al., 1974; as cited in Evans & Jarvis, 1986).

Collective Efficacy Scale–Short Form. The 12-item Collective Efficacy Scale–Short Form (CES; Goddard & Hoy, 2003) measured the "shared perceptions of teachers in a school that the efforts of the faculty as a whole will have positive effects on the students." The CES was administered to the two learning teams at the end of the 14-session phase of the action research study in June 2011.

The collective efficacy scale was developed in response to Bandura's (1997) social cognitive theory development. The original Perceived Self-Efficacy Scale, based on the Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) earlier model of the teacher efficacy scale, comprised 21 items and was oriented toward individual perceptions. The

revised 12-item short form is focused on the group as the unit of analysis; capturing the behavioral and normative influence that collective efficacy exerts (Goddard 2002).

As Goddard (2002) noted, collective efficacy depends on the interaction of perceived group competence to perform a given task and the context in which the task will take place. Pajares (1996; as cited in Goddard, 2002) referred to the collective efficacy interrelated factors of group competence (GC) and task analysis (TA) as "task-and-situation specific" (p. 1). Moreover, Goddard (2002) elaborated,

> Group-teaching competence (GC) consists of judgments about the capabilities that a faculty brings to a given teaching situation. These judgments include inferences about the faculty's teaching methods, skills, training, and expertise. Task analysis (TA) refers to perceptions of the constraints and opportunities inherent in the task at hand. In addition to the abilities and motivations of students, TA includes teachers' beliefs about the level of support provided by the students' home and the community (p. 100).

For teachers, their perceptions of "conjoint capability" to improve student learning are influenced by their perceptions of group competence and the availability or lack of support and resources necessary to meet the goals set. The 12-item short form offers more balanced representation with 3 items in each of the four categories measuring positive group competence (GC+), negative group competence (GC−), positive task analysis (TA+), and negative task analysis (TA−).

Fifty elementary schools in a large urban Midwestern school district were randomly selected to participate in the pilot study. Three failed to meet the selection criteria and were dropped, resulting in a 47 (97%) elementary school sample size. During

regularly scheduled faculty meetings, the CES and a second unrelated survey were administered. Half the teachers received the CES and the other half received the second survey in a random distribution. The reported return rate was high, at 99% of 452 completed surveys. A high internal consistency of survey items was achieved with an alpha coefficient equal to .94, which confirmed the reliability of the shortened scale. Validity tests revealed that the 12-item CES highly correlated to the original 21-item CE model (r = .983), suggesting that the elimination of 9 previous items or 43% of content resulted in minimal change. The multilevel test of predictive validity indicated that the CES short form was a positive-predictor of between school variability in students' math achievement (Goddard, 2002, p. 108).

Procedures Used for Data Collection and Analysis

Triangulation of data was used to ensure the trustworthiness and reliability of research data gathered in the naturalistic setting. Multiple sources of qualitative data were collected to provide a more complete description of the case study. First, there was the researcher's journal in which field notes were recorded to document the learning team meetings and discussion notes. Second, participant observations were captured, typed, and compiled in a computer file. Semi-structured one-on-one interviews were conducted by a third-party interviewer at the end of the 14-week period. The interviews were professionally transcribed and yielded 22 pages of text. Finally, additional data was obtained in the Learning Team Survey, a self-report questionnaire completed at the last learning team meeting in the first week of June 2011. Ultimately, the triangulation of qualitative data included three sources: participant observations, written documentation, and the semi-structured interviews.

Qualitative data analysis. Auerbach & Silverstein (2003) presented a qualitative data analysis approach for beginning researchers. I employed their basic approach to analyze the qualitative data, including coding data, looking for themes, and then looking for patterns among the themes. This process was not to support theory or to confirm existing research. Instead, the goal was to develop a better understanding of the process involving teachers in efforts to address the significant problems the school was facing. Procedures Creswell (2007) outlined for analyzing and reporting the collected qualitative data were modified for the purposes of this research (pp.156–157).

They included:

1. **Creating and organizing files for data collection.** The learning team meeting agendas, attendance sign-in sheets, meeting notes, protocols, and handouts were compiled in a binder and then transferred via Microsoft Word into an electronic research journal. Enlarged charts generated from the learning team meetings were also recorded electronically into a Microsoft Word file. Interviews were professionally transcribed and the transcripts were then entered into a matrix to highlight specific excerpts that corresponded to the question and research concern. This represented the first step of separating "relevant text" from the raw data (Auerbach & Silverstein, 2003, p. 37). Data from each of the four surveys was organized in separate Word documents summarizing the results and corresponding tables or charts were created to display the information.

Table 3.2

Data Collection Sources by Research Questions

Research Question	Qualitative Data Collected	Quantitative Data Collected
What was the process of developing two learning teams as PLCs in a restructuring high school?	—NYS School Report Cards —JIT Audit Report —Research journal —Protocols and artifacts —Conversations —Participant observations	
What start-up strategies worked well? What challenges were confronted?	—Participant observations —Group Discussions —Meeting agendas, meeting notes, artifacts —Research Journal	
What were the readiness issues for teachers used to working in isolation to engage in learning teams?	—Group Discussions —"Fears & Hopes" Protocol —Research Journal, artifacts —Participant observations —Interviews	—Collaboration Survey (March and June) —Collective Efficacy Scale (June) —Group Attitude Scale (June)
To what extent did the learning teams function as professional learning communities?	—Participant observations —Group Discussions —Professional articles, artifacts —Interviews —CoP stages of development	—Learning Team Survey (June) —Group Attitude Scale (June) —Collective Efficacy Scale (June)

2. **Reading through text, making margin notes, forming initial codes.** The texts collected for data analysis included 22 pages of interview transcripts, the electronic research journal, and other documents such as the enlarged charts and worksheets generated from the learning team meetings. Following Auerbach & Silverstein's (2003) coding strategies, these texts were reviewed and marked using the iterative process of multiple readings and review, separating relevant text aligned to the research concerns and guiding theoretical frameworks, categorizing repeating ideas, consolidating theme categories into theoretical constructs consistent with the guiding theoretical

framework(s), and creating a theoretical narrative to "retell the participant's story in terms of the theoretical constructs" (p. 43).

3. **Presenting an in-depth picture of the case(s) using narrative, tables, and figures.** The Science Learning Team and Social Studies Learning Team cases were presented with details of their experiences supported by participants' words, meeting team documentation, participant observations, and relevant survey results. Table 3.2 outlines the data collection sources and types of data for each research question.

Learning Team Interviews

Mindful that the researcher had a direct role in the learning team meetings, a third party interviewer was employed for the teacher interviews. This was done in order to minimize any risk of compromising the participants' honest and frank feedback. The third party interviewer, Ms. Langston (pseudonym), was a well-respected colleague and school social worker. On several occasions, Ms. Langston attended and observed the learning team meetings as part of an administrative internship. She was accepted as a neutral party, and was responsible for contacting the teachers, coordinating appointments, and conducting the interviews. An interview protocol (Appendix A) was developed by the researcher and reviewed with Ms. Langston. Initially, the researcher proposed using a focus group format to gain feedback from the learning teams. However, the teachers expressed concern about scheduling issues at the end of the school year, and requested individual interviews as a more convenient option. Their request was accepted and individual interviews were scheduled. Seven of the eight teachers consented. One teacher declined to participate in the interviews.

After gaining the participants' consent and signed confidentiality forms (Appendix B), Ms. Langston conducted the semi-structured interview consisting of 11 questions regarding their participation, attitudes, and perceptions, and feedback of the learning team experience. The individual interviews ranged from 20 to 30 minutes in length. Additional prompting for clarification or expansion on the answers was minimal.

The interviews were professionally transcribed, yielding 22 pages of text, responses to the semi-structured interview questions were analyzed, and excerpts were compiled in a matrix according to the question category (e.g., PLC/collaboration, PLC/instructional practice; see Appendix C, the interview excerpt matrix.). The interview transcripts and excerpted matrix were read over several times and coded by key words, repeating ideas, categories, and themes. In addition, I maintained a binder containing the agendas, attendance sheets, protocols, professional articles, and notes compiled during the research period. Enlarged charts and a research journal were also generated.

Interview Categories and Themes

Overall categories and themes about PLCs that emerged from the interviews, learning team meetings, and group conversations were

- *Time* (constrained by school schedule, scarce, set aside in school day for learning teams);
- *Purpose* (need for consensus about the "why and what" of PLC and its goals);
- *Commitment* (voluntary vs. mandatory, recruiting teachers, buy-in);
- *Control* (structure, facilitated by teachers vs. administrators, schedule, flexibility);

- *Accountability/Responsibility* (follow through, equity and equal participation);
- *Outcomes* (improvement for students, teachers, administrators, and school);
- *Support* (administrators, district, community).

Chapter Summary

This chapter presented the research paradigm, methodology, data collection methods, and data analysis that were used to examine two learning teams readiness to engage in an action research pilot as a PLC. A rationale for CoP as a paradigm guiding the study was discussed as well as details pertaining to selection of participants, research setting, and data collection sources used for triangulation. Chapter 4 will present the qualitative and quantitative data collection results and findings.

Chapter 4: Results

As stated in Chapter 1, this study investigated the use of two learning teams as a preliminary strategy for professional learning community (PLC) and to inform school-wide PLC implementation in a restructuring high school. From the Ninth Grade Academy, a purposeful sampling of eight teachers—four teachers each from the social studies and science departments—comprised the two learning teams. From March through the first week of June 2011, fourteen 45-minute sessions were scheduled during the teachers' common planning period. The social studies learning team (SSLT) and the science learning team (SLT) met weekly on Tuesdays and Thursdays, respectively. During the 14-week research period, the researcher facilitated, observed, and documented the two learning teams' processes and participation.

This chapter reports the results of the data analysis and findings for each research question. Four research questions guided this study::

1. What was the process for developing the learning teams as a preliminary step toward PLC implementation in a restructuring high school?
2. What start up strategies worked well for the learning teams? What challenges were confronted?
3. What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?
4. To what extent did the learning teams function as professional learning communities?

The final part of this chapter concludes with an overall summary of the results.

Study Findings

A brief summary of the findings for each research question is provided here, specific details are discussed further as each research question and its related data analysis are reported in this chapter.

Research Question 1. What was the process for developing two learning teams as a preliminary step toward PLC implementation in a restructuring high school? The findings of this study suggest that the process for developing the two learning teams involved three phases: (1) the initiation of group identity as the teachers came together in weekly meetings to defined a common purpose and direction; (2) the exploration of important topics and discussions focused on How best to educate and support ninth graders; and (3) the anticipation and possibility of continuing and expanding the learning team work through future school-wide PLC implementation. An overall related finding is that school-wide implementation of a professional learning community requires deliberate, ongoing, supportive conditions and technical resources provided and coordinated at the building and district levels.

Research Question 2. What start-up strategies worked well for the learning teams? What challenges were confronted? The findings of the study indicate that the following start-up strategies facilitated the learning teams: structuring the learning teams by (a) identifying a specific grade level, department/subject areas, and a specific inquiry focus; (b) meeting in the teachers' classrooms; (c) establishing group norms; (d) having a facilitator; (e) providing an agenda, using protocols, and professional literature; (f) charting feedback; (g) deliberate effort to maintain transparency of learning teams'

purpose and goals. The findings of the study indicate that the following challenges were confronted: (a) use of time, (b) issues of control, (c) openness to new learning and inquiry, (d) shared responsibility for academic and school improvement, and (e) establishing buy-in.

Research Question 3. *What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?* The findings of the study indicate that the issues of readiness related to (a) collaboration, (b) group affinity and cohesion, (c) collective efficacy, and (d) organizational readiness to change.

Research Question 4. *To what extent did the two learning teams function as professional learning teams?* The findings of the study indicate that the two learning teams functioned at an early stage of professional learning community development between Wenger's "Potential" and "Coalescing" stages. Participation on the learning teams served as a positive and promising preliminary strategy to introduce and transition to PLC school wide.

Data Analysis and Results

Research Question 1. What was the process for developing two teacher learning teams as a preliminary step toward PLC implementation in a restructuring high school? For Research Question 1, the process of developing the two learning teams is described through a narrative description interweaving the teachers' words, actions, and interactions with the research context as these were evident from multiple qualitative data sources: meeting notes, group discussions, protocols, participant observations and the teacher interviews.

In the fall of 2008, I moved from a district elementary school to the Ridgeview High School and was reassigned as assistant principal of the Ninth Grade Academy. Over the course of the first year at RHS, it became evident that a large number of ninth graders were experiencing difficulty with the transition from middle school to high school. According to district data, 331 students, or 43% of ninth graders, failed to advance to 10th grade by the end of the school year in June 2009. They were labeled "repeaters," and would have to retake or repeat failed ninth-grade core courses (English, science, social studies, and mathematics).

As a result for the 2009-2010 academic year, the Renaissance Academy was established to accommodate the growing number of students repeating 9th and 10th grade. In addition to the Ninth Grade Academy and the Renaissance Academy, three small learning academies were started: Communications (10th grade), Finance (10th grade), and Legal Studies (11–12th grade). Despite the reorganization into academies, over the two-year period (2009–2011), to create "small learning communities" and to improve student achievement, academic gains remained poor and continued to fall short of standardized accountability targets.

In May 2010 a JIT site evaluation was conducted by an outside education consulting firm along with district and state education officials. This action represented the final step before a possible "take over" by the New York State Education Department. As a result of the JIT education audit's findings, recommendations were made in four key areas: (a) Teaching & Learning, (b) Leadership, (c) Infrastructure, and (d) Use of Data (JIT Report, 2010).

Over the last seven years (2004–2011), RHS has experienced significant turnover in school leadership, with six changes in principalship alternating between interim or appointed positions. In August 2010 the former principal resigned. At the end of January 2011, the current RHS principal was appointed. Organizational instability, negative community opinion, severe financial constraints, neglected physical plant, and low teacher morale have exacerbated the ability of the high school to provide high quality, academically challenging learning, raise faculty/staff morale, and to maintain a safe, positive, aesthetically viable educational environment for all students. According to the 2009-2010 New York State Report Card data, RHS failed to meet AYP standardized performance targets for the following student subgroups in English Language Arts (All Students; African American/Black); Mathematics (African American/Black). As a result, RHS was designated as a school-in-need-of-improvement (SINI) and was placed in the Advanced Restructuring category.

During the 2010-2011 academic year, a district central office administrator was reassigned to RHS. In this capacity, the interim principal was responsible for carrying out the JIT restructuring action plan. With the exception of the Ninth Grade Academy, the other small learning academies were disbanded (Renaissance, Communications, Finance, and Legal Studies). Under the current principal, there has been a renewed focus centered on (a) improving student achievement; especially for ninth graders, repeaters, and overage student groups, (b) reducing negative student behavior, and (c) improving teacher morale and school climate.

For the 2010-2011 academic year, I sought to involve ninth-grade academy teachers in an action research project directed at addressing a major school concern—

increasing the numbers of ninth graders moving successfully to tenth grade on time. As assistant principal of Curriculum and Instruction, I had approached the ninth-grade academy core subject area (English, mathematics, science, and social studies) teachers (approximately 16 teachers) in December 2010 about participating in an action research pilot. The specific inquiry focus was on *How best to educate and support ninth graders*. The teachers were informed that the researcher's involvement in the action research pilot was twofold: as ongoing RHS curriculum and instruction work and as part of a dissertation study (Appendix D).

By the end of January 2011, the district-assigned interim principal left and the current principal was hired. The new principal reorganized the administrative team's responsibilities and duties. As a result an assignment change was made for the Ninth Grade Academy. The newly assigned ninth-grade assistant principal's first action was to "require" that the teachers comply with the contractual administrative duty by meeting for common planning. While the ninth-grade teachers had a dedicated fourth period common planning, most did not adhere to any formal meeting arrangements. For me, this change coincided with and facilitated the launching of the ninth-grade learning teams. The learning team meetings commenced just prior to the third marking period (March, 2011).

Several of the ninth-grade teachers in the English Language Arts department participated in an adolescent literacy initiative and interacted with a literacy coach twice weekly during the school year. From October 2010 to June 2011, several ninth-grade mathematics teachers attended a weekly instructional-technology training program funded through an *Enhancing Education through Technology*, or EETT federal grant.

However, the science and social studies teachers were not involved in formal in-service professional development programs. The action research pilot presented an opportunity to engage and initiate two learning teams of ninth-grade science and social teachers focused on improving student achievement.

From the Ninth Grade Academy, two learning teams of ninth-grade teachers—science and social studies—were convened as an action research pilot to address the inquiry focus (*How best to educate and support ninth graders*). From March through the first week of June 2011, fourteen 45-minute sessions were scheduled during the teachers' common planning period. Comprised of four teachers each, the social studies learning team (SSLT) and the science learning team (SLT) met weekly on Tuesdays and Thursdays, respectively. During the four month research period, I facilitated, observed, and documented the two learning teams' group processes and participation. The intended goals were that each learning team would demonstrate positive group dynamics, develop a common purpose and shared goals, and engage in action research.

On more than one occasion, I had engaged in frank and open dialogue with the teachers on many positive and negative issues concerning poor student achievement. It is within this "real, messy, vulnerable" restructuring school context that I launched, encouraged, and carried out this research study with the two learning teams.

Getting started. The two learning teams started very differently. In the first meeting for the SLT, there were some initial tensions regarding the overt reluctance on the part of the two veteran teachers and their level of commitment to the group. After the first SLT meeting, there was an opportunity to speak with each of these veteran teachers separately about their concerns and reservations. In one case, the teacher expressed

frustration with the administrative changes and "mandated" attendance for common planning. She was also anxious about the "late" time of the year for starting the learning teams, pressure to meet curriculum and testing expectations, and about completing end of year tasks. The second teacher revealed concerns that stemmed from the prior year and changes made when the former principal established the small learning academies. She too was unhappy about the timing of the learning team (mid-year) and viewed it more as a mandate than a professional development opportunity. Despite these initial tensions, both teachers agreed to keep an open mind and continued to attend the learning team meetings and to engage cooperatively in the group conversations and activities.

Having solicited interest in and introduced the possibility of forming the learning team to several social studies teachers, the level of resistance was significantly less but there were still some initial concerns regarding the late start in the year. In contrast to the SLT, the social studies teachers demonstrated stronger cohesion and collegial rapport that reflected their established reputation as a close knit veteran department.

Learning team meetings. In most instances, professional articles were distributed to the learning teams prior to the scheduled meetings. An agenda, protocol, and group activity was planned for every learning team meeting. Figures 4.1 and 4.2 present a summary of the learning team meeting agenda topics. I have attempted to align the topics of the meetings with Wenger's (1998) early (potential, coalescing) and mature (maturing, stewardship, and transformation) CoP phases of development. For this research study, the phases are described as: (a) initiation, (b) exploration, and (c) anticipation/possibility.

Introducing PLC. In one of the first meetings, the teachers were asked to read, "Collaborative Professional Learning Scenario" from *Becoming a Learning School* (Killion, 2009). After reading and discussing this collaborative PLC-in-action learning scenario, the learning teams responded to the "Fears and Hopes" protocol, or structured conversation tool, as a way to elicit their feelings, expectations, and concerns regarding possible school-wide implementation (McDonald, Mohr, Dichter, & McDonald, 2007, p. 23). First, the teachers were asked to pair up with another member of the group and to discuss two questions:

1. What fears or concerns do you have for implementing PLC in this school?
2. What hopes or expectations do you have for implementing PLC in this school?

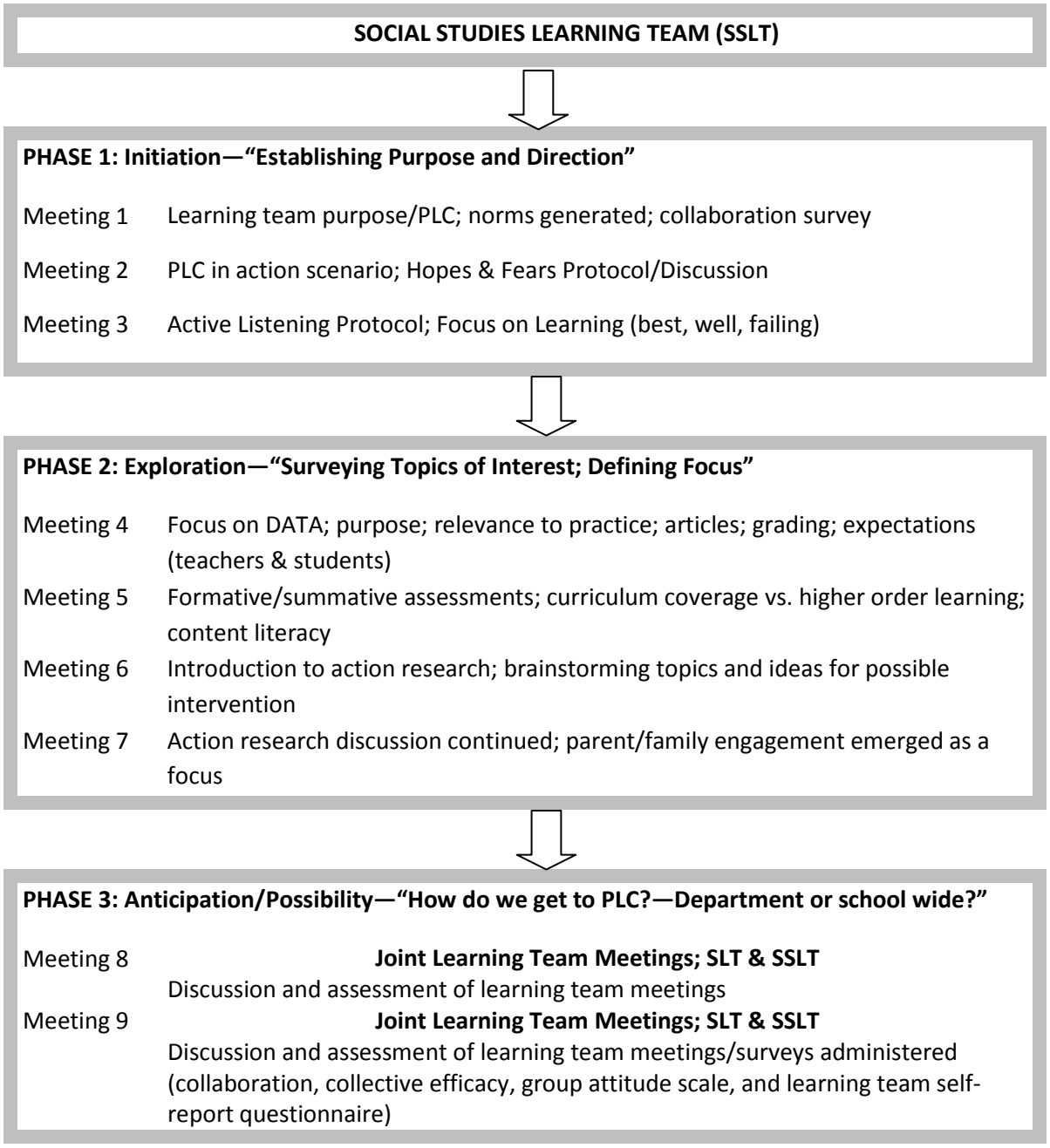

Figure 4.1. Social Studies Learning Team Meeting Topics/Agenda.

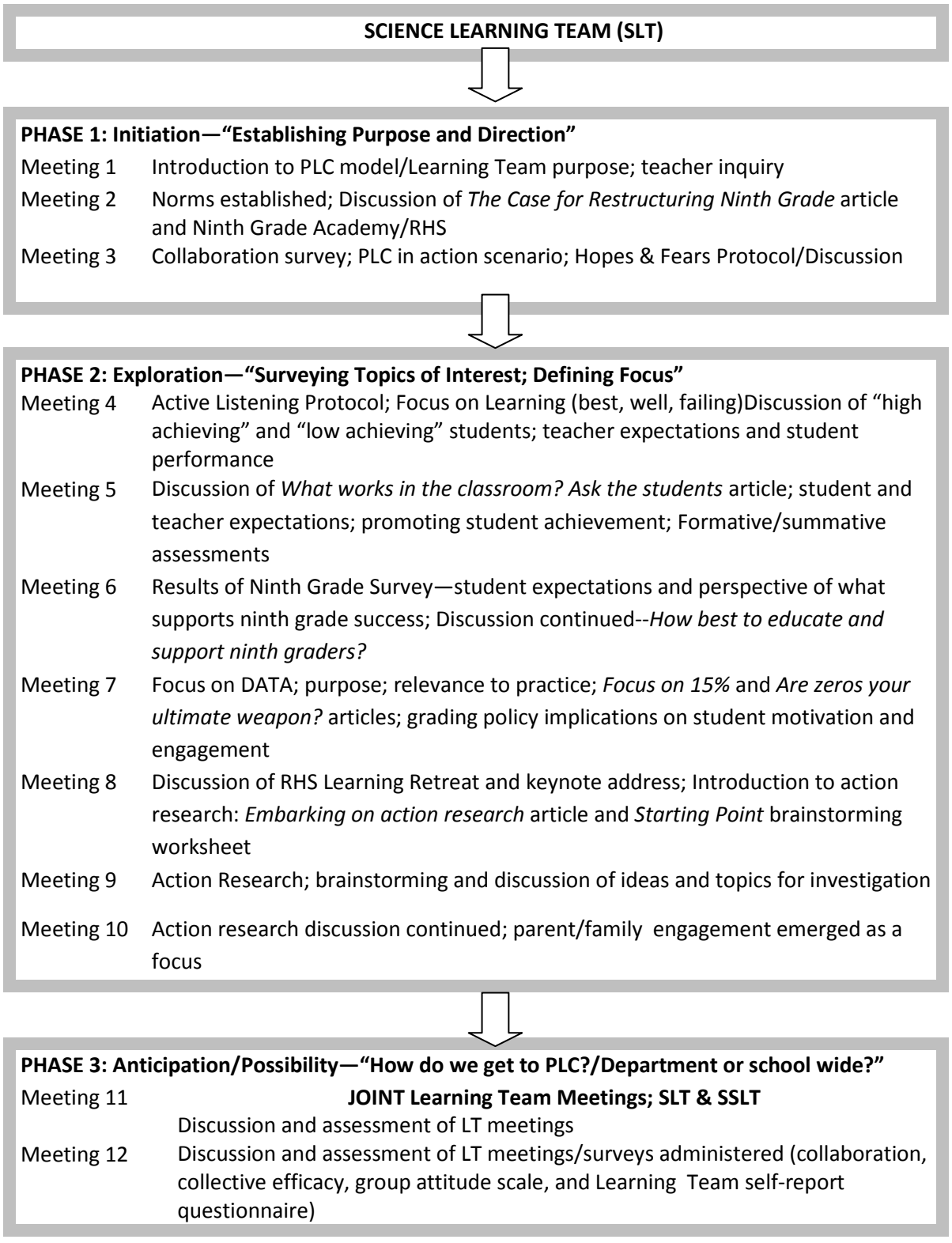

Figure 4.2. Science Learning Team Meeting Topics/Agenda.

As each group shared, the responses were recorded on large chart paper. Table 4.1 presents the Science Learning Team's responses and Table 4.2 presents the Social Studies Learning Team's responses.

Table 4.1

Fears and Hopes Protocol—Science Learning Team's Responses

Fears (for implementing PLC)	Hopes (for implementing PLC)
Level of commitment and consistency	Student autonomy/responsibility will increase
Teachers on same page; willingness	Teacher effort will demonstrate hard work and commitment to continuous learning
Negative feelings directed at team members	More cohesive lessons; meaningful curriculum
Trust	Improved instructional delivery; new strategies
Uneven levels of enthusiasm	Increased teacher confidence
Lack of support for risk taking from colleagues	Teacher empowerment; participation in school-wide improvement
Conflict	More opportunity for mentorship; formal and informal collaboration

Using the protocol facilitated the group discussion and allowed the teachers to freely offer their ideas and concerns in a safe structured environment. In the second meeting, each learning team was asked to generate norms. Each learning team defined norms to support their interactions and to provide agreed upon guidelines for working together. The norms were posted and referred to during the learning team meetings. I assured the participants that what was discussed would not be shared with administration for evaluative purposes. In the initial meetings, much effort was spent to establish trust and to define the teachers' role and common purpose. It was apparent in the responses to the "Fears and Hopes" protocol activity and ensuing conversations that the learning teams

recognized the value of collaboration but were somewhat unsure of how to promote a collaborative culture school wide. As referenced in Tables 4.1 and 4.2, the teachers were especially concerned about encouraging teacher buy-in from and leadership support.

Table 4.2

Fears and Hopes Protocol—Social Studies Learning Team Responses

Fears (for implementing PLC)	Hopes (for implementing PLC)
Lack of commitment at all levels (teachers, staff, and administrators)	Improve student learning
Perceived as mandate rather than collaboration	Enhance content literacy
Time and energy (meeting burnout)	Improve student discipline; more proactive vs. reactive approaches
Compliance with the PLC model	Highly motivated students
Stuck between a "rock" and a "hard place"	Changing the culture of the school
Collaborative ideas and effort not "honestly" recognized	Improve Regents scores

Five stages of community development are suggested in the CoP theoretical framework: *Potential*, *Coalescing* (early phases) and *Maturing*, *Stewardship*, and *Transformation* (mature phases). Characteristics for each stage are described in Table 4.3.

Using this CoP theoretical framework presented in Table 4.3, the developmental stages of the two learning teams were examined. Over the course of the four-month research period (March–June 2011), the conversations, actions, and interactions of the learning teams were captured through research journal, interviews, and participant observations. Reflecting on these qualitative data sources, I have proposed a three-phase continuum adapted from the CoP developmental stages to describe the learning teams

process. They are described as: (1) Initiation, (2) Exploration, and (3) Anticipation/Possibility phases.

Table 4.3

Communities of Practice—Five Stages of Development

Phase	Characteristics for CoP Components		
Early			
Potential	sense of shared domain emerges from pressing concerns/important issues	see value in coming together; possibility of collaborative action	identifying common knowledge needs
Coalescing	establish value of sharing knowledge about the domain	develop relationships and build trust	develop specifically what knowledge should be shared
Mature			
Maturing	defining its role in the organization; relationship to other domains	managing the boundary; not becoming distracted from core purpose	organizing the knowledge and taking stewardship seriously
Stewardship	maintain relevance of the domain and identify voice in the organization	keep the tone and intellectual focus lively and engaging	keep community on the cutting edge
Transformation	remains relevant or is no longer relevant	sustains and grows or dies and fades away	evolving and innovating or becomes rote and institutionalized

Initiation phase. The early learning team meetings (Meetings 1–3) were exemplary of this phase. Wenger et al. (2002) described what I have termed *initiation* phase as the *potential* phase. In this phase, the learning team came together tentatively, with an underdeveloped sense of purpose, and moved toward establishing trust, building relationships, and identifying the focus or "work" for their shared practice. For both learning teams the phrase, "We'll give it a try, but don't expect much." attitude summarized the initial reluctance and skepticism expressed by some of the learning team members. They questioned the learning teams purpose and usefulness.

During the first two meetings, the SLT and SSLT teachers adamantly expressed their reluctance and frustration with having to meet at this "late" time in the school year. Many expressed anxiety and the need to focus their efforts "to cover the curriculum and to prepare for the end-of-year state standardized tests." Some of the teachers expressed concern about the "reason for the team meetings" and wondered "what were their responsibilities."

At the first SLT meeting, the teachers were asked to give one word that expressed how they felt at the moment. The words offered were *overwhelmed, stressed, tired,* and *busy*. One of the teachers sat outside the main area and was resistant to move closer into the circle of conversation, stating, "I will, when the activities start." In one of the first journal entries, I noted as a major obstacle, "Teachers not trusting that their input mattered and viewing this [learning team] as a 'mandate,' rather than a voluntary opportunity to work with and learn from colleagues." The following day, Ms. Jones, a veteran science teacher and I had a chance to talk about the first learning team meeting and her overt resistance. Much of her angst was due to a feeling that the learning team should be voluntary and not "mandated." She was also not pleased with the time of the year for starting this effort. However, Ms. Jones did agree with "the value of working with her colleagues—but as they [teachers] saw necessary, not in response to administrative directives."

Having solicited interest in and introduced the possibility of forming a learning team to several social studies teachers, the level of resistance was significantly less, but there were still some initial concerns. The SSLT appeared more willing "out of compliance" but not necessarily for any personal or professional gains. In the one-to-one

interview, Mr. Hill, a social studies teacher, expressed his objection to an administrator's direct involvement, "I think that we also need an administrator who doesn't necessarily have to coordinate our efforts but to see how we do things, and if he or she can add anything—advice, experiences, opinions that we might need, that would be welcome." Another teacher, Mr. Jacob, with 19 years' teaching experience, talked about his participation on an interdisciplinary learning team at the middle school level. "Well, we don't have it right now. . . . [We] did it in the middle school and basically it was math, English, social studies, and we would meet every other day or sometimes every day. . . . I can see the people in the high school being okay with it also." He recalled a past administrator's attempt to initiate teams at the RHS. Mr. Jacob revealed an understanding of the learning team philosophy but he did not see much practical impact and follow through. Unlike the SLT, the SSLT moved more quickly into the discussions of collaboration and what a PLC might entail at the high school.

Exploration phase. This phase provided an outlet for teachers to share their common concerns and ideas about ninth-grade students, teaching, curriculum, and the school community. During the interim meetings (SSLT Meetings 4–7; SLT Meetings 4–10), several major agenda topics were explored (e.g. student engagement, grading policy, use of data, formative assessments, school culture, and parent/community engagement). These topics sparked lively, intense, and thoughtful discussions among the learning teams. Prior to or during the learning team meetings, the teachers were given research and educational articles. This facilitated the conversations because the teachers debated, offered new perspectives, and reflected on how the topics related to the current ninth-grade instructional issues and concerns. As related to the CoP theoretical framework, this

phase was in line with the coalescing phase, because the teachers were discussing and defining their shared domain. The learning teams were developing a group identity and establishing a sense of purpose. At the same time, the discussions allowed for collaboration and sharing of perspectives, ideas, and problem solving around important issues that impacted ninth graders' achievement. In SSLT Meeting 5 (4/14/11), the agenda topic was formative assessment. The following research journal entry illustrates the mutual exchange of ideas and suggestions that arose around this problem of practice:

> To start off, the facilitator asked the teachers for their definitions of formative and summative assessment. After several responses, the facilitator directed attention to two articles on the topic. In the articles, formative assessment was defined as "ongoing, diagnostic, and informing teachers' knowledge of instruction and student learning." One of the teachers began the discussion. He stated, "Teachers are stuck. We have to teach students how to take Regents tests. We feel constrained to limit assessment to multiple choice, DBQ [document-based questions], and thematic essay." He continued to express [teachers'] frustration between trying to teach the curriculum and "expanding" students thinking skills. The teacher suggested that readings for interest, homework, and open-ended questions could serve that purpose. Further, he bemoaned the concern for students struggling with literacy [in the content area]—articulating their thoughts and understanding in an essay form. . . . The facilitator suggested that encouraging student discussion as a way to support writing, and that perhaps, he could model the writing process for the students. . . . Other teachers offered ways to deal with this challenge. The special education teacher talked about students

who didn't want to write notes. She was concerned with socialization issues, reading difficulties, and the large number of ninth-grade "repeaters," and the impact on their learning and achievement. This co-teacher viewed formative assessment positively. She and her colleague often assigned hands-on projects to [push] students to think and to increase participation. They also maintained student work portfolios. The conversation continued and touched on: item analysis, task analysis, skills analysis, and meta-cognition as tools to provide more information about students' learning. (During the past years collaboration with John Hopkins University, teachers in the freshman academy offered a seminar course to develop organizational and study skills.) One teacher recalled teaching students' about "Cornell notes"—a notetaking format. Another teacher lamented that the "pendulum tends to swing back and forth." The teacher who opened the conversation closed the group discussion stating, "Every student has to have an artifact of his or her learning every day."

In the latter meetings (SLT Meeting 9–10/SSLT Meeting 6–7), action research was introduced and proposed as a way for teachers to consider *How best to educate and support ninth graders?* After a "warm-up" protocol, introduction of action research, and a discussion of how it might be used, the SLT and SSLT began to brainstorm possible ideas and areas for intervention. Much of the SLT and the SSLT energy and discussions were devoted to parental and family roles and responsibilities for student learning and achievement. Each learning team discussed ways to encourage ninth graders' parental/family support and increase their school engagement.

In this phase, the researcher observed the teachers discussing past practices and generating new ideas for how to deal with the critical issues affecting ninth graders. During this exploratory phase, the learning teams were actively involved in their meetings. The participation was enthusiastic and uninhibited—ideas were contributed freely and everyone's input mattered. On some occasions, students were outside the classroom signaling that the learning team meeting had run overtime. Interview comments on the learning teams' perceptions of how PLCs could impact student achievement and school improvement revealed this intentional and forthright stance (pseudonyms are used):

> **Ms. Smith:** As far as the [PLCs go], with teachers and staff, fostering relationships, working together, they'll feel happier. They won't feel like they're alone and everyone's against you.
>
> **Mr. Jeffrey:** I think in a big school like . . . it's easy to get isolated and have no connection with the other teachers. I think people would get a better sense of community and closeness between the teachers, which is important in a big school. And I think it would reflect on the students as well.
>
> **Ms. White:** We probably have small groups having their own success and this will depend on, say, the camaraderie of the teachers that are in that group. Some teachers will buy into it, some teachers will not.
>
> **Mr. Hill:** I believe a good school has to have . . . strong teachers; teachers that collaborate, teachers that can work well within a team and independently. I also think that it's going to need strong leadership.
>
> **Ms. Cook:** If the PLC is done right, to give students the support they need . . . and

I think we need parents to be part of our PLC also. If we can engage students, if we can get their attention and provide them support, I think we will see an improvement in our success rate school wide.

Anticipation/Possibility Phase. For the final two meetings (5/26/11 & 6/1/11), the SLT and the SSLT met together as one large group. This accommodated the increasing time constraints and the impending stress teachers' felt regarding end-of-year activities and deadlines. This phase was categorized as the *anticipatory/possibility* phase to describe the favorable anticipation and possibility expressed by all the teachers for future learning team and PLC work continuing at the high school. At the first of two joint learning team sessions, teachers reflected on Henry Ford's quote, "Coming together is a beginning, keeping together is progress, and working together is success" (retrieved from http://thinkexist.com/quotes/henry_ford). Marking the culmination of the learning team pilot, the quote aptly captured our "work and learning" together and the sense of community that was evolving. The teachers were asked to think about their learning team participation and to respond to three reflection questions:

1. In what ways had this experience influenced their thinking regarding professional learning?
2. What were the benefits?
3. What were the challenges?

One of the science teachers, Ms. Jones, declined to be interviewed. She consistently voiced her concerns that teachers maintain their autonomy and that their collaboration occur naturally and not as a result of administrative directives. Ms. Jones was also insistent that collaboration not be viewed as a "panacea" but that "conflict" is

also recognized as an inevitable aspect of teamwork. Ms. Jones was a well-respected and valued member of the science department. The novice teachers on the SLT often mentioned how they sought her out for advice with lessons and labs. In the interview, Ms. Smith shared, "we have an expert teacher, and if she was given time—especially [with] the newer teachers—there are two of us in the department who have less than five years of experience—if she was given time to sit with us and show us different techniques that she uses in her classroom and how to teach in the subject area, I think our professional learning would be very good." While there were several meetings where Ms. Jones had to be prodded to meet, her participation always enhanced and challenged the SLT to consider divergent perspectives on the topic(s) discussed.

Drawing from the group discussion at the two joint meetings (SLT and SSLT) and from the interview feedback the following comments revealed teachers' overall feelings, sense of purpose and benefits derived from participation on the learning teams.

> **Mr. Hill:** I believe that collaboration will make us all better teachers and will help us [serve] the young people to a much greater effect.
>
> **Ms. Cook:** If we do it the right way and carry it through, for the teachers, I see an opportunity to learn, always, from our colleagues, learn new methods and strategies.
>
> **Ms. Baker:** [Benefits are] . . . understanding other people's perspectives and their ideas, what suggestions they might have, . . . what challenges the [students] may have. Having the reciprocity of the team.
>
> **Mr. Jacob:** [Benefits are] . . . closer monitoring of the students . . . once four or all five teachers get together.

Ms. White: Better networking. . . . We could actually learn that we have great resources amongst ourselves.

Mr. Jeffrey: The positive, it was good to get together. I did develop a better relationship with teachers I was with. You know, to see things from a different angle, to see how they felt about the articles we read, was helpful for me. The negative, I would say: I wish it was a little more structured.

In response to the final reflection question on challenges and the interview question on obstacles to school-wide implementation, the learning teams offered important insights and cautions. One of the SLT teachers suggested, "First thing you have to do is get people who want to change. . . . I guess buying into the process would be the toughest problem." Several of the teachers mentioned time as a major concern:

I know initially we all felt that a period was being taken from us . . . In the long run it's actually going to make this a little more effective, in terms of the efficacy for our kids and for their success.

There needs to be time set aside during the school day to meet with the team. And it has to be established from the beginning of the school year. . . . Teacher willingness is another obstacle.

From the words and actions of the learning team teachers and the field notes and participant observations recorded by the researcher during the 14-week period, it became more apparent that, by the last meeting, the learning teams identified themselves as "teams" and that they were experiencing a shift from "initial reluctance to recognized participation" and from "recognized participation to "anticipated" and "possible" future

school-wide implementation. This is further reflected in the following comments (pseudonyms are used):

> **Ms. Smith:** Overall, I thought the group was a good start to a PLC, and I'm interested to see where it will go next year, for the teachers, like I said, start at the beginning [of the school year]."
>
> **Mr. Jacobs:** Implement [PLC] in the ninth grade and pair up people you think will work together well and then based on success or imperfections of the plan, I would move forward with the plan. It would probably have to be tweaked every now and then. . . . I don't know if you can just implement it for high school for every class right away, but definitely start it on the freshmen level.
>
> **Ms. Baker:** I'd like to see it continue. Again, I was a little hesitant, only because I was losing my period, but if it's going to lead to our kids' improvement, success, closing the achievement gap, let's do it.
>
> **Ms. Cook:** For school wide or department, we really need to have a focus as to why we're doing it, what we want to achieve and be realistic about what we want to achieve. Again, we have to have very specific goals at the beginning that are realistic and then branch out to larger things.
>
> **Mr. Jeffrey:** Um, participation would be a difficult thing, you know, to make everyone be involved. We kind of did it by volunteer, but that was a small group. I think to make it school wide it would have to be mandatory and structured.
>
> **Ms. White:** This is something that I think would be better if it started at the beginning of the school year. So this way, [teachers] could begin to plan and work as learning teams, . . . starting off slowly, too, with one topic at a time, or

maybe starting with groups that teach the same subject.

Summary. The process of participating on learning teams was new and presented initial challenges and concerns about purpose, expectations, and time. However, as the SLT and the SSLT progressed through the 14 weeks, members began to identify themselves as teams, conversations developed and were increasingly more focused and engaging on important topics related to *instruction* (grading, formative assessment, subject matter, and curriculum), *school structures* (scheduling, Ninth Grade Academy, class assignments, school discipline, and climate), and *students* (student engagement, parent involvement, roles, and responsibilities).

The process for developing the two learning teams involved (a) the initiation of group identity as the teachers came together in weekly meetings to define a common purpose and direction, (b) the exploration of important topics and discussions focused on *How best to educate and support ninth graders*, and (c) the anticipation and possibility of continuing and expanding the learning team work through future school-wide PLC implementation.

Research Question 2. *What start-up strategies worked well for the learning teams? What challenges were confronted?* The section of this chapter on data analyses related to Research Question 2 will summarize the start-up strategies and the challenges encountered to launch the learning teams. Data for Research Question 2 was derived from multiple qualitative sources: participant observations, research journal, group discussions, meeting notes, and interview transcripts. For this question, the analysis of data involved repeated "deep reading and noticing" key words, repeated topics and phrases, patterns in the qualitative data (research journal, interview transcripts, charted feedback), and

reflection on the steps taken to initiate and conduct the learning team meetings. From this reflective process, connecting ideas, categories, patterns, and patterns emerged.

Several start-up strategies that worked well for the learning teams included:

1. *Identifying the specific grade level, department/subject areas, and a specific inquiry focus for the selected group of teachers.* For this study, the Ninth Grade Academy was identified as having a core group of teachers willing to investigate the inquiry question: *How best to educate and support ninth graders?* Ninth Grade Academy teachers in the science and social studies departments were verbally invited to consider participating on the learning teams. They were encouraged to select one day a week for each team to meet during a four-month (March–June 2011) pilot period for a projected 14-week period. While the ninth-grade teachers were assigned a fourth-period common planning period, Monday through Friday, they did not meet regularly or formally as a group.

2. *Meeting in the teachers' classrooms* in the Ninth Grade Academy wing rather than in a conference room. The SLT rotated the meetings in each of the four teachers' classrooms. The SSLT generally met in the same classroom each time. *Group norms* were established by each learning team and posted at every meeting.

3. *Providing an agenda for each meeting*. *Using Protocols*, specific procedures for reflection and discussion activities, structured conversations and supported the flow of the meeting within the 45-minute period. *Distributing education articles from research and professional development sources* prior to and during meetings. *Charting the feedback from the conversations and activities*. In addition, *having a facilitator* coordinate and lead the meetings contributed to the learning teams' organization.

4. Making *deliberate effort to maintain transparency regarding the purpose and goals of the learning team meetings* beyond the research study as an action research project engaging teachers in inquiry for adult learning and as part of our continuous efforts toward academic and school wide improvement.

The major challenges confronted by the learning teams included: *use of time, issue of control, openness to new learning and inquiry, shared responsibility for academic and school improvement, and establishing buy-in.*

1. *Time* was an immediate concern and initial obstacle in that the learning team meetings began midyear in March as opposed to the start of the school year (September). Teachers expressed their anxiety and stress over end-of-year state testing, grading deadlines, and school activities that demanded their time. The teachers' feedback referred to "Overcoming individuals' concerns about time . . . seeing the time in learning teams as valuable and contributing to student learning." "Time set aside during the school day to meet with the team. And it has to be established from the beginning of the school year." "This is something that I think would be better started at the beginning of the school year. So this way, we could begin to plan and work as learning teams."

2. *Issues of control* also surfaced from the start as teachers questioned why we were meeting and their frustration that it was "mandated" by school administration. Specific comments raised concerns about who was in charge, "We don't need administrators to coordinate our efforts, but see how we do things, and if he or she can add anything—advice, experiences, opinions that we might need, that would be welcome." The same teacher continued, "And it doesn't necessarily need to be an

administrator, it could be a teacher. Teachers have been effective in marshaling all the social studies teachers together."

3. *Openness to new learning and to inquiry* seemed challenging for the more experienced teachers who had years of tacit knowledge and displayed cynicism for what they viewed as just another "education fad." In their words, "This too shall pass." In contrast, the novice teachers expressed greater interest in working collaboratively with the experienced colleagues to plan, talk, share, and problem solve. One science teacher lamented, "We have an expert teacher, and if she was given time to sit with—especially the newer teachers. There are two of us in the department . . . she could show us different techniques that she use in her classroom and how to teach in the subject area." Another science teacher added, "On a school level, I think it [PLC] would create a better sense of community. I think in a big school like [RHS] it's easy to get isolated and have no connection with other teachers."

4. *Shared responsibility for academic and school improvement was underdeveloped in the LTs and represented a critical leadership challenge*. During the learning team meetings, there was considerable discussion of the roles and responsibilities of administrators, teachers, parents and students for academic achievement. Teachers expressed frustration with students they perceived as apathetic and unmotivated to put greater effort into their own learning. In one of the SLT meetings the focus was on profiles of high- and low-achieving students. The teachers were asked to describe the characteristics exhibited by these two student types. Based on their descriptions, the high-achieving student placed high personal value on education, which was recognized and encouraged by the student's family. The high-achieving student

demonstrated self-control, self-confidence, and initiative towards learning. In contrast, the SLT's profile of the low-achieving student described issues of poor literacy, lack of self-discipline, lack of confidence, past negative experience and failure, and low to no parent involvement as key factors affecting school performance. While the teachers were aware of challenges faced by low-performing students, they did not readily accept or connect student achievement to their teaching or professional influence. On another occasion the SSLT teachers were reflecting on the start of the Ninth Grade Academy and past work with a John Hopkins University consultant. While the teachers acknowledged several worthwhile program initiatives such as the *Freshman Seminar*, ninth-grade faculty teams, and a focus on student organizational and study skills, they lamented that the effort was poorly implemented and did not last beyond the departure of the consultant. For both the SLT and the SSLT, the topic chosen for a possible action research project was parent involvement. Learning team teachers often remarked about the outside challenges stemming from the students' home environment, peer groups, and social culture, but did not examine the direct relationship between teachers and students. This underdeveloped sense of shared responsibility for student achievement is a critical challenge for school leadership.

5. *Establishing buy-in for the learning teams*. Taking advantage of the common planning time helped to support the teachers' willingness to participate on the learning teams. While the teachers talked about the benefits of working as a professional learning community, they were not totally convinced that the learning teams would continue beyond the pilot. Creating the time within the school day for teachers to meet, dialogue, review student work, share, and learn new instructional practices would encourage

ownership and support their professionalism. Keeping teachers involved and a part of the planning and decision making is expected to facilitate the learning teams functioning as professional learning communities.

Summary. Through several rounds of reading, rereading, noticing, and reflecting upon the qualitative data sources (research journal, interview transcripts, participant-observation notes, and charted feedback), I identified repeating key words, connecting ideas, patterns, and themes related to launching the learning teams. The start-up strategies of (a) structuring and preparing the content (b) and having a facilitator lead the meeting contributed to the teachers' engagement and lively conversations. The use of group norms, protocols for focusing and guiding conversations, agendas, and professional reading also facilitated the process. In terms of challenges confronted, issues time and control, openness to new learning and inquiry, shared responsibility for academic and school improvement, and establishing buy-in were concerns and fears that the teachers expressed for PLC implementation.

Research Question 3. *What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?* This section of the results analysis presents the issues and concerns related to preparing and engaging the teachers for the learning teams in this PLC pre-implementation period. Findings from the quantitative analysis of the three surveys that assessed: collaboration, group attitude, and collective efficacy will be discussed as key sources of information related to issues of teachers' readiness to change (i.e., transition to a professional learning community).

As discussed in Chapter 2, the construct of organizational readiness for change has received considerable attention in research literature (Armenakis, Harris, &

Mossholder, 2001; Berneth, 2004; Walinga, 2008; Weiner, 2009). Getting people ready for a new initiative or undertaking is critical to reculturing and changing "how things are done around here" (Stoll, 1999). Weiner (2009) has proposed a theory of organizational readiness to inform the process from planned change to effective implementation. He defined organizational readiness as "referring to organizational members shared resolve to implement a change (*change commitment*) and shared belief in their collective capacity to do so (*change efficacy*)" (p. 68). Weiner elaborates that "organizational readiness for change varies as a function of how much [the] organizational members value the change (*change valence*) and how favorably they appraise three key determinants of implementation capability: *task demands*, *resource availability*, and *situational factors* (p. 67). Three questions corresponding to these key determinants emerged:

1. Do we know what it will take to implement this change effectively?
2. Do we have the resources to implement this change effectively?
3. Can we implement this change effectively given the situation we currently face?

Weiner concluded that while a theory of organizational readiness for change may support leadership with important insights and helpful strategies, the pathways from change to implementation are *equifinal*, that is, "there is no 'one best way' to increase organizational readiness for change" and therefore change facilitators should "focus instead on developing and using strategies that are tailored to local needs, opportunities, and constraints" (p.73).

Within this context, the readiness issues exhibited by the learning teams can be best understood by considering them in reference to the three readiness factors Weiner

has outlined: change commitment, change efficacy, change valence (and the three key determinants of implementation capability). In terms of the readiness issues the learning teams exhibited, an evaluation of change commitment would include an examination of variables such as shared vision and goals, collaboration, and collective responsibility. For change efficacy, Bandura's social cognitive theory, specifically, a focus on collective efficacy is warranted. Change valence relates to teachers' perceptions of what they will gain personally and professionally from the change initiative and how they assess its worth.

Specifically, for the SLT and SSLT high school teachers used to working in isolation, the readiness issues included:

- Creating awareness of the need to change professionally to strengthen practice and to improve student learning (change commitment),
- Encouraging a shift in practice and value from solo actors to collegial partners who generate conjoint work (change efficacy),
- Engaging in new ways of thinking, learning, and acting (change efficacy),
- Fostering active participation in envisioning a new perspective for school improvement and reculturing the learning environment (change commitment, change valence),
- Developing social capital (collective knowledge, skills, attitudes, and competencies) for improving practice and student learning (change efficacy),
- Increasing confidence, building collective efficacy to improve student learning (change efficacy),

- Accepting and demonstrating collective responsibility for student learning and achievement (change commitment, change valence).

Three surveys administered to the learning teams were instrumental in identifying and providing insight into the teachers' readiness issues as outlined above. First, the Collaboration Survey (NSDC, 2009) was administered in March and in June as a reality check of current collaborative practices. Second, The Group Attitude Scale (Evans & Jarvis, 1986), administered in June, measured the learning teams' group affinity and cohesion. Third, the Collective Efficacy Scale–Short Form (Goddard & Hoy, 2003), administered in June, measured the groups shared perceptions that the efforts of the faculty as a whole would have positive effects on students. Each of these surveys and the results will be presented below.

Collaboration survey. Developed by the National Staff Development Council (2009), the five-item collaboration survey is included in the toolkit accompanying the *Becoming a Learning School* resource guide. This collaboration survey was administered as a pre- and post-measure of teachers' collaboration currently operating at the high school among the learning team members and within their respective department. In March, each learning team completed the survey at the second meeting. The results were reported verbally in those learning team meetings and I recorded the tallied totals as well as pertinent comments shared. At the final joint learning team meeting, in June, each group completed the collaboration survey independently. The surveys were collected, analyzed, and data compiled. (Table 4.4 presents the results of the survey.)

For the first survey statement, *Teachers work collaboratively on the routine tasks associated with teaching*, eight (100%) of the learning team members agreed initially; 4

of the eight (50%) teachers shifted their responses from agree to disagree in the June survey. This shift may have resulted as the teachers rethought the concept of collaboration on routine tasks as a result of the learning team meetings.

Table 4.4

Collaboration Survey Results (Pre and Post Learning Team Pilot)

Question Topics	SA/A		NO		D/SD	
	Pre %(*n*)	Post %(*n*)	Pre %(*n*)	Post %(*n*)	Pre %(*n*)	Post %(*n*)
Routine teaching tasks	100 (8)	50 (4)	0 (0)	0 (0)	0 (0)	50(4)
PD on student learning needs	75 (6)	87.5 (7)	12.5 (1)	12.5 (1)	12.5 (1)	0 (0)
Working in teams for PD	25 (2)	50 (4)	25 (2)	12.5 (1)	50 (4)	37.5 (3)
Majority PD at the school	75 (6)	75 (6)	0 (0)	0 (0)	25 (2)	25% (2)
Teachers meet in teams multiple times per week	37.5 (3)	37.5 (3)	12.5 (1)	0 (0)	50 (4)	62.5 (5)

Note. Pre = March pretest; Post=June posttest; *n* = number of respondents corresponding for each percentage; SA/A = strongly agree/agree; NO = no opinion; D/SD = disagree/strongly disagree, PD = professional development.

Item 2, *Teachers professional development was based on learning needs of their students*, six of eight (87.5%) teachers agreed but emphasized the individual informal professional development shared among colleagues but not at the district level. One teacher strongly disagreed and criticized the district professional development as random and not responsive to teachers' needs. Two teachers spoke about collaboration with a consultant from a national history foundation and the practical usefulness of resources

provided. They felt that in that specific case, the information and materials were readily applicable to their classroom practice.

On Item 3, describing *professional development as teachers working in teams*, there was an increase from 6 (75%) to 7 (87.5%) teachers agreeing at the March and June intervals. There was one "no opinion" response for both intervals. One response of *disagreed* in March was changed to a *no opinion* in June. Some teachers reiterated that the support from colleagues was largely informal even though there was a fourth-period common planning set for ninth-grade teachers. One teacher commented that individual effort worked better for some.

Item 4, regarding the location of professional development, *the majority of teacher professional development occurs at school*, remained the same, at 75% *strongly agree/agree* for the pre- and postsurvey administration. Two responses (25%) shifted from the *strongly disagree* to *disagree* categories in March and June, respectively. For Item 5, *teachers meet multiple times per week in teams to learn, reflect, and extend teaching and student learning*, the majority 75% (6) responded *disagree* to *strongly disagree*. From March to June, one response shifted from *no opinion* to *strongly disagree*.

Interview feedback. The interview transcripts further depicted the teachers' outlook on collaboration and on the possible benefits for personal and professional growth, student achievement, and school improvement. Several interviewees addressed teacher collaboration:

> I think [*collaboration*] is really good. It's hard at the beginning, especially if you're a new teacher, because you don't feel like you have anything to offer, but

it's definitely beneficial to have someone to work with.

[*Collaboration*] has been key since the moment I've been here. I [observed] some teachers when I was in my first year. . . . I spoke to them at length about how they started the year and dealt with certain situations. . . . It was very self-directed, but it was extremely important to my development as a teacher.

We share resources, we talk about different ways of teaching, we discuss different topics, and we share our success stories and our "failures." And we make recommendations about how we could make things better.

Collaboration could be a good thing, if it's done properly. You can't just do collaboration just for the sake of doing collaboration.

We've *collaborated* on ideas and thoughts and turned them into best practices.

Summary. Results from the pre- and postsurvey indicated that while there were a few changes in ratings from the March and June survey administration, the overall average ratings remained consistent. Feedback from the collaboration survey revealed that

- informal sharing was common among the teachers,
- teachers occasionally sought out other teachers assistance and information on routine tasks,
- time was needed for more experienced teachers to share their expertise,
- professional development considered most helpful was experienced with teachers at the school rather than at the district level professional development workshops,
- Formalized weekly learning team meetings were not occurring within the departments,

- Common planning time was not consistent for every teacher in each department.

An overall finding suggests that the learning teams' collaboration is best described as informal, as needed, and congenial characterized largely by "storytelling and scanning" rather than by inquiry-based, instruction- or data-driven "joint work" to advance student learning and improve professional practice (Little, 1990; 2002; 2003).

Group Attitude Scale results. Each learning team's identity, level of commitment, and accountability to the group developed over time and was affected by relationships within the group. On the 20-item Group Attitude Scale, 10 items were negatively worded and 10 were positively worded. For a positively worded statement, "I like my group," the *following* values were assigned: 5—*strongly agree*, 4—*agree*, 3—*no opinion*, 2—*disagree*, and 1—*strongly disagree*. To facilitate interpretation the scores on the negatively stated items were reversed. For example, for negatively worded statements, "I feel distant from the group," the values were reversed. That is, for *strongly agree* a 5 score is reversed to 1, for *agree* a 4 score is reversed to 2, *no opinion* 3 is reversed to 3, and so forth, suggesting less agreement. Scores were then added to obtain a total score on the GAS. The minimum total individual score was 20 (low group attitude score) and the maximum total individual score was 100 (high group attitude score). The learning team teachers' mean group score was 71.5. This finding suggests a high, positive identification with the group and high group cohesion. Individual mean scores were calculated and used to arrive at the standard deviation for the total group. The standard deviation calculated was 6.54. The set of eight individual mean scores were: 63, 65, 67, 70, 71, 74, 78, and 84. Calculating the standard deviation from the group mean

score of 71.5 would place the positive end at 78 and the negative end at 65. Six of the teachers' scores occurred within this distribution range, while one was an outlier at 84. The remaining score (63) was slightly below the negative end by two points. Overall, this suggests that a normal distribution curve has been established for the small sample size.

Table 4.5

*Group Attitude Scale—Positively worded items (*N = *8)*

Category	Item/Description	SA/A %	NO %	D/SD %	*M* %
Attendance	3. Look forward to coming	50.0	25.0	25.0	3.3
	16. Group not meeting . . . feel badly	0.0	37.5	62.5	3.8
Membership	1. Remain a member	50.0	25.0	25.0	3.4
	11. Feel included	87.5	12.5	0.0	4.0
Affinity/Cohesion	2. I like my group.	87.5	12.5	0.0	4.1
	12. Feeling of unity exists	50.0	37.5	12.5	3.4
	15. Feel it would make difference if not here	37.5	37.5	25.0	3.1
	13. Group is better than most	12.5	75.0	12.5	3.0
Accountability	5. Feel involved in what happens	75.0	12.5	12.5	3.8
	18. Makes a difference how group turns out	75.0	12.5	12.5	3.8

Note. SA/A = *strongly agree/agree*. NO = *no opinion*. D/SD = *disagree/strongly disagree.*

I grouped the 20-item Group Attitude Scale statements into four categories: (a) attendance, (b) membership, (c) affinity/cohesion, and (d) accountability. For each category, teacher responses for the SA/A, NO, and D/SD ratings are summarized by the

positively and negatively worded statements and item-by-item results are reported in Table 4.5 and Table 4.6.

Results . For the 10 positively worded items in Table 4.5, 7 statements received a 50 to 87.5% SA/A rating. The two highest rated items at 87.5% were Item 11—*Feel included* (Membership) and Item 2—*I like my group* (Affinity/Cohesion). This suggests

Table 4.6

*Group Attitude Scale—Negatively Worded Items (*N = *8)*

Category	Item/Description	SA/A %	NO %	D/SD %	*M* %
Attendance	7. Dread coming	0.0	12.5	87.5	4.0
	20. Would not feel badly . . . missing	37.5	0.0	62.5	3.3
Membership	6. Drop out now . . . I would	25.0	25.0	50.0	3.4
	8. Wish group end now	25.0	37.5	37.5	3.3
	10. Move to another group	0.0	25.0	75.0	4.0
Affinity/Cohesion	9. Dissatisfied with group	0.0	12.5	87.5	4.1
	14. Do not feel a part	0.0	0.0	100.0	3.0
	17. Feel distant from group	0.0	0.0	100.0	4.1
	19. Absence . . . would not matter	0.0	25.0	62.5	3.9
Accountability	4. Don’t care what happens	0.0	12.5	12.5	3.8

Note. SA/A = strongly agree/agree. NO = no opinion. D/SD = disagree/strongly disagree.

that the majority of the teachers felt a sense of belonging and connectedness to their learning teams. This was followed by two items rated at 75% SA/A: Item 5—*Feel involved in what happens* (Accountability) and Item 18—*Makes a difference how group turns out* (Accountability). Three remaining items received 50% SA/A rating: Item 3—

Look forward to coming (Attendance), Item 1—*Remain a member* (Membership), and Item 12—*Feeling of unity exists* (Affinity/Cohesion).

Results. Of the negatively worded statements in Table 4.5, 7 of the 10 received a 75% to 100% D/SD rating. This is significant because it indicates that the learning teams rejected the majority of negative group attributes, thus resulting in positive assessments of the learning teams in the following categories: three D/SD ratings at 100% for Item 14—*Do not feel a part of the group* (Affinity/Cohesion), Item 17—*Feel distant from group* (Affinity/Cohesion), Item 4—*Don't care what happens* (Accountability); two 87.5% D/SD ratings for Item 7—*Dread coming* (Attendance) and Item 9—*Dissatisfied with group* (Affinity/Cohesion); and two 75% D/SD ratings for Item 10—Move to another group (Membership) and Item 19—Absence. . .would not matter (Affinity/Cohesion).

Summary. Findings from the Group Attitude Scale indicate that the majority of learning team members favored participating on the learning teams, felt a strong sense of belonging, felt affinity and cohesion to the group, and felt strongly accountable to the group's outcomes. In this regard, the social studies and science teachers strongly identified as "teams."

Collective Efficacy Scale–Short Form results. At the end of the 14-week period in June, the Collective Efficacy Scale–Short Form was administered to both learning teams. The Collective Efficacy Scale–Short Form (Goddard & Hoy, 2003) measured "shared perceptions of teachers in a school that the efforts of the faculty as a whole will have positive effects on students." A 6-point Likert-type scale ranging from *strongly disagree* (scored at 1 for positively worded statements; reversed-scored at 6 for

negatively-worded statements) to *Strongly Agree* (scored at 6 for positively worded statements; reverse-scored at 1 for negatively worded statements) was used to rate each of the items. Thus, positively worded statements scored at 6 indicated higher efficacy and negatively worded statements reversed scored at 1 indicated lower efficacy. For each of the 12 items a mean grouop score was calculated. and an overall total collective efficacy score. Table 4.7 provides the results for each of the 12 Collective Efficacy Scale items.

Results. For the SLT and SSLT, the overall collective efficacy score was 3.34. On a scale from 1–6 (lowest to highest), this represented a mid-range mean score. Given the small sample size, this score may not be statistically significant and suggests a low collective efficacy for the combined two groups. The collective efficacy group score was converted to a standardized school score (SdS) for comparison to "the normative data provided in a representative Ohio sample (Hoy & Woolfolk, 2000). In the Ohio sample, a SdS of 500 represented the average, with standard deviations at 100 intervals above or below. The SdS for collective efficacy for the two learning teams was 378. Rounding up to 400, the collective efficacy SdS indicated that the learning teams had a collective efficacy score 100 points below the average and suggested that it represented a collective efficacy score that was lower than 84% of the schools in the representative sample.

Summary. The overall finding from the Collective Efficacy Scale–Short Form indicates that RHS teachers on the learning teams' group score indicates a low collective efficacy for improving ninth-grade student academic achievement. Research has suggested that "lower collective efficacy leads to less effort, the propensity to give up, and a lower level of performance" (Goddard, Hoy & Woolfolk-Hoy, 2004).

Table 4.7

Collective Efficacy Scale Means

Item	*M*
Teachers able to get through to the most difficult students.	3.25
Home life provides so many advantages that students here are bound to learn.	1.75
Teachers confident they will be able to motivate students.	3.57
Students here just aren't motivated to learn.[a]	2.63
If a child doesn't want to learn teachers here give up.[a]	4.13
Teachers in this school do not have the skills to deal with student disciplinary problems.[a]	4.86
Teachers here don't have the skills needed to produce meaningful student learning.[a]	4.88
Opportunities in this community help ensure that these students will learn.	2.00
Teachers in this school believe that every child can learn.	3.63
Learning is more difficult at this school because students are worried about their safety.[a]	3.50
Students come to school ready to learn.	1.75
Drug and alcohol abuse in the community make learning difficult here for students.[a]	4.14

[a]The statement was negatively worded and reverse-scored from 6 (*strongly disagree*) to 1 (*strongly agree*).

The learning team teachers' low sense of collective efficacy reflected their expressed frustration and complaints in reoccurring discussions about students' home lives, the perceived lack of student and parent responsibility, the challenges of youth culture, and

the tremendous effort needed to overcome negative factors (SES, dysfunctional families, student effort, safety and discipline etc.) contributing to poor student achievement.

At one of the meetings, a SSLT member defended the teacher's role and impact, "Our professional development and professionalism can only do so much." During a SLT meeting in a discussion on tracking students and profiles of low- and high-achieving students, one teacher stated, "Empathy is often with the students and not with teachers. Teachers and administration have to be on the same page. There has to be consistency for student consequences and actions of adults."

Research Question 4. *To what extent did the learning teams function as PLCs?* The Learning Team Survey provided a tool for evaluating key components of the learning team participation that correlate with the PLC's collaborative culture, focus on learning, and collective construction of knowledge. This self-report questionnaire was administered to the eight teachers at the last meeting in June.

Learning Team Survey results. The Learning Team Survey provided a tool for evaluating key components of the learning team participation that correlate with the PLC's collaborative culture, focus on learning, and collective construction of knowledge. This self-report questionnaire was administered to the eight teachers at the last meeting in June 2011. The Learning Team Survey is a professional development self-report questionnaire generated as part of the toolkit in *Becoming a Learning School* (NSDC, 2009). Developed by the NSDC, the Collaboration Survey and the Learning Team Survey were developed as part of the resource guide, *Collaborative Professional Learning in School and Beyond: A Tool Kit for New Jersey Educators*. I e-mailed NSDC to acquire permission to administer the Learning Team Survey and to seek information

regarding instrument reliability and validity. The Learning Team Survey includes 11 items and consists of 5 open-ended questions and 6 closed-ended scaled sections. Descriptive feedback was gained on the learning team participants' attitudes, feelings, and ratings in several key areas of learning team participation. The Learning Team Survey was used to assess to what extent the two teacher groups functioned as professional learning communities.

Learning Team Survey open-ended questions. A summary of the five open-ended questions and responses follows:

1. *How many times [teacher] met with the learning team?* Six teachers reported that they attended more than seven learning team meetings; one teacher reported attending between four to six learning team meetings; and one teacher reported attending between one to three learning team meetings.

2. *What, if any, are the positive impacts of these meetings on you personally?* Six of the teachers reported the following positive impacts of the learning team meetings: (a) discussing solutions to common problems with teachers in same grade/subject area, (b) understanding other teachers have issues, (c) sharing ideas and solutions for improved academic and social performance, (d) chance to discuss, interact, and interface with colleagues with the same or similar students, (e) forced to do more professional reading, and (f) need for time to meet during school day . . . improve student productivity in subject area/team. One teacher had no response and one teacher felt it was too soon to conclude the impact.

3. *What, if any, are the negative impacts of these meetings on you personally?* One teacher posed a question: What are the tangible benefits? Two responses stated,

"Very rarely [do] pedagogues need theory and methods," and "Not everyone wanted to participate." Two teachers answered, "None," and one teacher had no response.

4. *Of the teachers on your learning team, how many do you think believe the learning team approach has significant potential to help teachers improve students' motivation and performance?* For this question, four teachers selected "four"; three teachers selected "one"; and one teacher selected, "Don't know." Half the teachers believed that the learning team approach was a viable approach to improve students' motivation and performance.

5. *In your opinion, what percent students have benefited from your learning team participation?* Five teachers marked 26–50%, one teacher marked 76%, and two teachers gave no response.

Closed-ended section results. The six closed-ended Learning Team Survey sections measured the teachers' perceptions and evaluation in six areas: Section 2—Learning team meetings, Section 5—Learning team benefits, Section 6—Learning team activities/task success, Section 10—Teacher growth and development, Section 11—Outcomes for teacher practice, and Section 12—Work environment. The rating scales ranged from 1–5 or 1–10 to assess a specific item along a continuum from least to greatest effect. A mean score was calculated for each section and the items were ranked in order from the greatest to least mean score.

Summary Learning Team Survey: Section 2. The results in Table 4.8 indicate that the learning team meetings were rated positively and scored in the above average (7.0 to 10.0) range for content, facilitation/structure, group compatibility, and opportunity to participate in honest, open, meaningful conversations with colleagues.

Table 4.8

Learning Team Survey—Section 2: Learning Team Meeting—Item Means

Item	*M*
Less than honest communication . . . . . Honest	8.6
Not well facilitated . . . . . Well facilitated	8.4[a]
Incompatible group members . . . . . Compatible	8.3
Non–task oriented . . . . . Task oriented	7.4
Unproductive . . . . . .Productive	7.0

Note. Scale: 1(*most negative*) to 10 (*most positive*); *n* = 8 teachers.

[a]Denotes: Only 7 responses for this item. One teacher left the item blank.

Summary Learning Team Survey: Section 5. The results from this section (Table 4.9) indicate that the learning teams were rated highly in areas affecting personal benefits. That is, for providing the teachers an outlet for expressing and sharing frustrations, teaching and learning concerns and problems of practice with colleagues.

Table 4.9

Learning Team Survey—Section 5: Benefits of Learning Team Participation Item Means

Item	*M*
New outlet for expressing/sharing frustrations, concerns, problems w/ teaching	3.8
Stronger sense of connection/support from teachers	3.4
Greater sense of yourself as a professional	3.0
New insights about how to reach certain students	2.9
New knowledge about T & L	2.8
New perspectives on personal strengths & weaknesses	2.8
New ideas about how to improve teaching	2.6
Greater confidence using wider range instructional & assessment methods	2.4

Note. Scale: 1(*not much benefit*) to 5 (*great deal of benefit*); *N* = 8.

They also endorsed the learning teams and for forging a stronger connection and sense of support among the teachers. Enhancing professionalism received an average

(3.0) mean score. In terms of impact on professional development and increasing professional capacity, the ratings were below 3.0 for four items that (a) addressed teachers' sharing and generating knowledge of pedagogy, (b) new ideas for student engagement, (c) professional reflection, and (d) ideas for improving professional practice. These four items represent a higher level of collaboration at which the learning teams were not operating.

Table 4.10

Learning Team Survey—Section 6: Learning Team Activities/Tasks Item Means

Item	*M*
Reading research, studying successful strategies for addressing student needs . . .applications of what we read	3.6[a]
Analyzing & discussing student needs	3.5
Investigating programs, strategies, and materials . . . motivate students	3.4
Assessing and sharing results of new teaching approaches w/ learning team	3.4
Sharing successful strategies you currently use	3.3
Discussing similarities/differences in teachers' approaches	3.3
Trying out new techniques, materials, teaching approaches & assessing students	2.8
Designing new materials, lessons, or student assessments	2.3

Summary Learning Team Survey: Section 6. The eight items in Section 6, as shown in Table 4.10, reflect the activities and tasks that result from collaborative engagement with colleagues to build instructional knowledge and professional practice. They represent a high level of "generative and joint work" that exemplifies mature communities of practice in a highly functioning professional learning community. On the scale from 1 (*not at all successful*) to 5 (*extremely successful*), the learning team teachers'

ratings were in the middle range reflecting "somewhat successful" assessment of current levels of practice in these areas. For example, the highest ranked item, *Reading research, studying successful strategies for addressing student needs . . .application of what we read,* was rated at 3.6. For this item one teacher left a blank and was not counted in this mean score. Prior to convening the two learning teams, this practice was not observed as a common occurrence in faculty meetings, common planning, or department meetings. In the interviews, several teachers commented on reading more research and professional articles as a result of the learning team participation. The item *Analyzing & discussing student needs* received a slightly above-average rating at 3.5. Again, the discussions during the learning team meetings were generally around the problems encountered with students and some brief exchanges of possible actions but not the deep analysis of students as learners. This type of intervention would more likely occur during a child study team meeting conducted for a special education review meeting. Three items involved *investigating programs, strategies, and materials to motivate students; assessing and sharing results of new teaching approaches with the learning teams*; and *sharing successful strategies currently used.* These types of activities were very limited before and during the research study. Finally, two items rated below the average 3.0 score were *Trying out new techniques, materials, teaching approaches & assessing students* and *Designing new materials, lessons, or student assessments.* These types of higher level activities were not demonstrated and were rated at 2.8 and 2.3 respectively.

Table 4.11

Learning Team Survey—Section 8: Learning Team Teacher Growth and Development Item Means

Item	*M*
Teachers talked to each other . . . teaching & results	3.4
Teachers shared articles and other professional resources, read books	2.9
Teachers provided moral support/encouragement trying out new ideas	2.9
Teachers asked each other for advice/help w/ particular students/topics	2.8
Teachers developed interdisciplinary strategies to increase student interest & learning	2.5
Teachers worked together . . . examine classroom tests/student work to better understand student strengths and weaknesses	2.0
Teachers helped each other implement ideas form workshops attended	2.0
Teachers learned by watching each other teach	1.9
Teachers critiqued lessons, assessments, or units together	1.9
Teachers reviewed curriculum across grade levels	1.9
Teachers designed lessons, assessments, or units together	1.8
Teachers visited other schools . . . examined instructional approaches	1.4

Note. Scale: 1(*not very effectively practiced*) to 5 (*very effectively practiced*); $n = 8$.

Summary Learning Team Survey: Section 8. For Section 8—*Teacher Growth and Development* (Table 4.11) participants assessed 12 items in terms of whether they were practiced effectively at the school prior to the learning teams. The scale ranged from 1 (*not very effectively practiced*) to 5 (*very effectively practiced*). In this section, one item scored above average (3.0): *teachers talked to each other . . . teaching &results*

(3.4). A lower measure of effective practice is reflected in the teachers' responses to the following six items that represented higher collaboration and engagement to impact practice and build a shared repertoire. The mean scores ranged from slightly below the 3.0 average to one full scale point difference: (a) *Teachers shared articles and other professional resources, read books* (2.9); (b) *Teachers provided moral support/encouragement trying out new ideas* (2.9); (c) *Teachers asked each other for advice/help w/particular students/topics* (2.8); (d) *Teachers developed interdisciplinary strategies to increase student interest and learning* (2.5); (e) *Teachers worked together . . . examine classroom tests/student work . . .*(2.0); and (f) *Teachers helped each other implement ideas from workshops attended* (2.0). At the highest level of collective effort and mutual engagement, the remaining five items received the lowest ratings: (a) *Teachers learned from each other by watching each other teach* (1.9); (b) *Teachers critiqued lessons, assessments, or units together* (1.9), (c) *Teachers reviewed curriculum across grade levels* (1.9), (d) *Teachers designed lessons, assessments, or units together* (1.8), and (e) *Teachers visited other schools . . . examined instructional approaches* (1.4). Similar to Section 5, *Learning Team Activities/Tasks*, the items in this section moved from lower to greater stages of "collaboration and joint work." Given the average ratings, the teachers represent a lower level of professional growth and development. This was also reflected in the conversations, observations, and interview feedback. As mentioned previously, two of the novice teachers commented on several occasions for the need for more time to work with and receive mentoring from the more experienced teachers. In the Collaboration Survey administered in March and June, findings corroborated the lack of collaboration and common planning among the teachers and within their departments.

Table 4.12

Learning Team Survey—Section 10: Personal/Professional Outcomes Item Means

Item	*M*
Improve skills in helping students learn	3.5
Significantly change how I work w/ other teachers	3.4
Increase understanding/how to motivate students work harder	3.3
Significantly change how I teach	3.0
Improve overall teaching effectiveness	3.0
Change my perceptions/students learning abilities	2.9

Note. Scale: 1(*not at all*) to 5 (*a great deal*); *N* = 8 teachers.

Summary Learning Team Survey: Section 10. As presented in Table 4.12, teachers assessed the personal and professional impact of their learning team participation. The scale ranged from 1 (*not at all*) to 5 (*a great deal*) to measure six possible outcomes for practice. Overall, the ratings revealed an average mean score slightly above 3.0 to just below, at 2.9. Again, the mean scores would be best described as having a "moderate" impact on improving skills, changing approach to working with colleagues, increasing understanding of how to motivate students to work harder, changing teaching, and increasing teaching effectiveness. Perhaps most significant was that the item *Change my perceptions of students learning abilities* was rated lowest, at 2.9. Some of the limited outcomes may be due to the short time spent in the learning teams, the 14-week pilot period, and the beginning stage of development of the learning teams. Given longer time periods and better defined focus and work, these items may have yielded higher ratings.

Table 4.13

Learning Team Survey—Section 11: Work Environment Item Means

Item	*M*
Student motivation is major problem here	4.4
Teachers here get along well	3.8
Enthusiastic about participation on learning teams	3.4
Teachers here tend to do their own thing/little coordination	3.3
Feel lot of stress during workday	3.1
Need more time for learning team participation	3.1
Satisfied w/work environment here	3.0
Excited by my students' accomplishments this year	2.4
Often feel unsure of my teaching	1.4

Note. Scale: 1(*strongly disagree*) to 5 (*strongly agree*); $n = 8$.

Summary Learning Team Survey: Section 11. Table 4.13 shows participants' responses to nine statements evaluating their work environment on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Two items were important to highlight in this section. The 4.4 mean score revealed a high agreement with the statement *Student motivation is a major problem here.* This coincided with results in the collective efficacy scale, comments in the learning teams, and feedback to the interview questions where teachers expressed frustration and concern with perceived student lack of motivation, effort, and poor academic performance. Similarly, the statement *Excited by my students' accomplishments this year* was rated 2.4, to indicate disagreement and dissatisfaction. But more telling was that for *Often feel unsure of my teaching* the teachers rated the

statement closer to strongly disagree, at 1.4. While the teachers' average mean score acknowledged that there were problems with student performance, there was no direct link to individual teaching practice. Moderate agreement was reflected for enthusiasm for participation on the learning teams and teachers working independently with little coordination, stress experienced, and time allotted for learning team participation. A collective average score of the nine items at 3.1 falls in the middle of the continuum suggesting overall satisfaction with the work environment.

Summary. For Research Question 4, the Learning Team Survey provided a useful tool to evaluate to what extent the SLT and SSLT exhibited key components of a professional learning community. Specifically, the PLC focus on learning (students and adults) and collaborative culture was assessed in Section 6–*LT Activities and Tasks,* Section 8–*Teacher Growth and Development,* and Section 10–*Personal/Professional Outcomes*. Areas where these results correlated with the collaboration survey and collective efficacy scale were highlighted. In addition, results from the Learning Team Survey were corroborated by qualitative data generated from the learning team meeting notes, participant observations, and interview feedback. Overall, the Learning Team Survey results revealed that the learning teams demonstrated an early stage of community development between what Wenger describes as *Potential* and *Coalescing*. In this regard, the two learning teams consist of (Potential) "people who face similar situations without the benefit of a shared practice" and who are "finding each other, discovering commonalities" and who are moving toward (Coalescing), "recognizing their potential" and "exploring connectedness, defining joint enterprise, negotiating community" (Wenger, 2010, p. 3). An important finding of the study suggests that the use of learning

teams offers a positive and promising preliminary strategy to introduce and transition to professional learning community in a restructuring high school.

Summary of Results

This chapter reported the analysis and results from both qualitative and quantitative data sources. The four research questions were used as an organizing structure so that the results from both qualitative and quantitative data relevant to a particular question were presented together. The analysis of interview transcripts, research journal, meeting artifacts, and participant observations provided the relevant qualitative data from which key ideas, categories, and themes emerged related to learning team participation. The results of the qualitative data analysis were supplemented with the quantitative analysis of data from four self-reporting instruments (Collaboration Survey, Group Attitude Scale, Collective Efficacy Scale–Short Form, and Learning Team Survey). The combined analysis revealed important findings related to the participants' feelings, attitudes, perceptions, and interactions on the learning teams. Additionally, findings also supported my assessment of the learning team participants' level of change commitment, change efficacy, professional needs, and "fears and hopes" for future continuous improvement in a restructuring high school. The implications of those findings are discussed in Chapter 5.

Chapter 5: Discussion

In this chapter, I will discuss implications that emerged from this research study for the two learning teams as related to the research questions in Chapter 4. First, study findings for each research question are summarized. Next, the implications for professional practice as they relate to the Ridgeview High School's (RHS) restructuring effort and future implementation of a school-wide professional learning community will be considered. Additionally, implications related to theory, scholarly research and policy will also be discussed. Next, the limitations of the research study will be addressed. Finally, recommendations for further research will be suggested and in the conclusion major points of the entire dissertation will be summarized.

A mixed-methods case study was conducted to investigate the use of learning teams as a preliminary strategy for developing a professional learning community (PLC), and to inform school-wide PLC implementation in a restructuring high school. This mixed-methods case study (Creswell, 2007; Yin, 2009) investigated four research questions:

1. What was the process for developing the learning teams as a preliminary step toward PLC in a restructuring high school?
2. What start up strategies worked well for the learning teams? What challenges were confronted?
3. What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?

4. To what extent did the learning teams function as professional learning communities?

Study Findings

Research Question 1: Process for developing the two learning teams. A notable finding of the study purports that the two learning teams served as a positive and promising preliminary strategy to introduce and transition to a professional learning community in a restructuring high school. Several factors presented unexpected impositions and restrictions as this research was launched and the two learning teams were initiated. First, the district was subject to severe fiscal constraints, pervasive and low faculty and staff morale, and a highly vulnerable school environment. Seond, two external accountability reports at the state and federal levels labeled RHS as "underperforming" and in "advanced restructuring" status. This in turn was exacerbated by the unexpected resignation of a two-year principal in August 2010, followed by an interim district principal for five months, and the appointment of a new principal at the end of January 2011. Leadership turnover significantly impacted faculty/staff morale and the sense of collective efficacy.

Further, poor student achievement and incidents of negative behavior were a significant concern and focus of attention at the school and in the community. Central office support was distant and generally limited to monitoring compliance and assessing school accomplishments in terms of curriculum guidelines, professional training initiatives, teacher evaluation, and district policy. In addition, I was a relative newcomer to RHS, recently making the transition from the elementary to secondary level.

Despite these challenges, I served as assistant principal of the Ninth Grade Academy in the first year at the high school. In this role, I experienced a tremendous sense of urgency around increasing academic failure that existed for ninth graders in my first year of high school. In an effort to address this important issue, I sought to involve Ninth Grade Academy teachers in an action research pilot focused on improving ninth-grade academic performance. For this research, the opportunity to merge the ninth-grade underperformance issue with the doctoral study seemed most appropriate. In this context, in December 2010 I approached the core subject teachers (approximately 16 teachers) to consider participating on a learning team as part of an action research pilot.

Study findings highlighted three stages observed in the process of developing the two learning teams: (1) initiation as a team, (2) exploration of shared concerns, problems of practice, student needs, and relevant instructional and curriculum topics, and (3) anticipation and possibility for continuing this action research in the subject departments and school wide.

Research Question 2: Start up strategies that worked well and challenges confronted. In terms of start-up strategies, study findings suggest that the following procedures served the learning teams well:

1. Selecting a specific grade level and department/subject areas, and focusing on a specific inquiry question for the learning team teachers.
2. Meeting in the teachers' classrooms
3. Structuring the meetings by providing an agenda, protocol, professional literature, or group activity. In addition, having a facilitator coordinate and lead the meetings contributed to the learning teams' organization.

4. Deliberate effort to maintain transparency regarding the purpose, expectations, and goals of the learning team meetings.

These four factors were critical to creating a safe and trusting environment for high school teachers to begin to engage in the learning teams. Fullan, Hill, & Crevola (2006) in *Breakthrough*, offer a "path, a process, a model that they think will take large educational systems from their current state of effortful but only marginally successful improvements to a completely different state, a high functioning and powerful transformation unlike anything . . . previously experienced " (p. xi). The authors identified three "Breakthrough" components for an educational system to take off: personalization, precision, and professional learning (pp. 14–26).

Personalization is described in reference to differentiating classroom instruction and placing the student at the center of learning. Key to accomplishing this task is to motivate and provide individualized interventions and opportunities to learn (p. 16). They focus on the relationship between the teacher and the student, the home, and the school. Such focus is not relegated to the individual but calls upon collective effort as well. Supporting teachers who are charged with forging school change will require no less. Keeping the teachers concerns, input, and voices at the forefront is imperative to break through the culture of inertia and status quo at the high school level and to build a school-wide professional learning community. Learning teams that incorporate many ways to personalize the teachers' collaboration increase the likelihood that teachers will incorporate new beliefs and attitudes about student learning and improving instruction.

Findings regarding challenges that confronted the learning teams included: (a) time, (b) control, (c) openness to new learning and inquiry, (d) underdeveloped shared

responsibility for student academic and school improvement as a critical leadership challenge, (e) and establishing buy-in for the learning teams. These five challenges indicate that at the local and district level more effort and coherence is needed to provide the essential conditions for supporting the development of a professional learning community. By finding creative ways to alter the traditional high school schedule and to create a psychologically safe environment and risk-free opportunities for adult learning, teachers will in turn be ready to provide similar learning experiences for students. Hord & Sommers (2008) suggested two categories of supportive conditions are essential for sustaining a professional learning community: physical/structural factors that include time, place for meeting, resources, policies, and collaborative environment and relational factors that include human/interpersonal development, openness, trust and truth telling, and respectful attitudes and caring. Giving the start-up strategies and challenges identified, an overall finding suggests that school-wide implementation of professional learning community in the RHS will require deliberate, ongoing, supportive conditions and technical resources provided and coordinated at the building and district leadership levels.

Research Question 3: Readiness issues for teachers. The concept of "organizational readiness to change" became more pronounced and important as a mediating variable throughout this research study. At the outset, teachers' initial reluctance and skepticism about the learning teams demonstrated that they had not mentally prepared for this type of engagement. Readiness implied "risk-taking" and "trust." The two groups were uncertain of the purpose, expectations, and outcomes that would be derived from participating on the learning teams. Establishing norms or mutual

guidelines for working together, maintaining transparency, and assuring confidentiality were crucial and served to support the building of trust and safety in the learning team meetings. Weiner (2009) defined *organizational readiness for change* as an organization's members' collective attitude, willingness, commitment, and confidence to engage in school change (p. 67). To further understand and assess the teachers' readiness for the learning teams, three surveys provided insight into the teachers' current level of collaboration (Killion & Roy, 2009); group affinity and cohesion (Jarvis & Evans, 1986); and perceived collective efficacy (Goddard & Hoy, 2003).

Findings on current levels of collaboration seemed to indicate that (a) RHS secondary teachers' collaboration was informal, sporadic, and congenial characterized largely by "storytelling and scanning" rather than inquiry-based, instruction- or data-driven "joint work" to advance student learning and improve professional practice (Little, 1990, 2002). Accordingly, Little (1990, 2002) drawing on Rosenholtz's (1989) classic research study of teachers in the workplace, described four levels of teacher collaboration. At the lowest level, there was low interdependency, and the interactions are characterized as "storytelling and scanning." In other words, teachers exchange bits of information as they briefly encounter each other in the hallways, staff rooms, or other informal locations. This does not result in changes to their professional practice. A next level is called "aid and assistance" which entails helping and giving input that may result in a critical look at one's practice. Above this level, is "sharing and exchanging of instructional materials and ideas." This involves regular sharing of materials, methods, ideas, and opinions, and greater interdependency where colleagues are aware of another's daily routines and there is meaningful dialogue about curriculum. The final level, "joint

work" has the highest level of interdependency where teachers collaborate on instructional problem solving and planning.

Overall findings from the Group Attitude Scale results regarding the teachers' sense of group affinity and cohesion revealed that the learning team teachers strongly identified as a "team." A majority of the teachers favored participating on the learning teams, felt a strong sense of belonging, felt affinity and cohesion to the group, and felt strongly accountable to the group's outcome. In a Dutch study of two interdisciplinary teacher teams, Meirink, Imants, Meijer, and Verloop (2010) used the Group Attitude Scale to assess the level of interdependence as a measure of collective efficacy. Based on the Group Attitude Scale data, they implied that the greater the group cohesion, the greater the interdependence, which would suggest that teachers learn more from each other and had greater influence on improving practice.

Study findings from the Collective Efficacy Survey–Short Form, indicated that the two learning teams score had low perceived collective efficacy for improving ninth-grade student academic achievement. The 12-item Collective Efficacy Scale measured the "shared perceptions of teachers in a school that the efforts of the faculty as a whole will have positive effects on the students." The Collective Efficacy Scale was administered to the two learning teams at the end of the 14-session phase of the research study in June 2011. The teachers' beliefs of "conjoint capability" to improve student learning are influenced by their perceptions of group competence and the availability or lack of support and resources necessary to meet the goals set (Goddard, 2002).

Research Question 4: Learning teams functioning as PLCs. The Learning Team Survey (Killion & Roy, 2009) was used to measure to what extent the two learning

teams functioned as professional learning communities. The six closed-ended Learning Team Survey sections measured the teachers' perceptions and evaluation of six areas: learning team meetings, learning team benefits, learning team activities/task success, teacher growth & development, outcomes for teacher practice, and work environment. The rating scales ranged from 1–5 or 1–10 to assess a specific item along a continuum from least to greatest effect. A mean score was calculated for the each section and the items were ranked order from the greatest to least mean score.

The self-reported results implied that the teachers rated highly the structure and content of the learning team meetings, the opportunity to come together to discuss problems of practice, student issues and concerns, and school improvement. Reading professional articles on teaching and learning topics was also helpful. This finding is very significant because all eight of the teachers are viewed positively by their colleagues and administrators and have demonstrated commitment, consistent effort, and caring for students. However, the collective efficacy score for the two groups was in the lowest quartile based on the Collective Efficacy Scale–Short Form.

Another important finding from this self-report questionnaire revealed that teacher collaboration resulting in "joint work" or the collective work of teachers engaged in examining practice, analyzing student work, curriculum, and data, questioning practice, and trying new strategies and interventions to improve student learning is limited at the high school. Given the short time research period, this evaluation calls attention to the beginning stage of professional learning community development of the two learning teams and the need for more deliberate and focused attention, supportive conditions, and technical resources at the building and district levels.

Implications of Findings

Findings resulting from this study add to professional understanding of the local factors and challenges encountered in one midsize urban-suburban restructuring high school where two content/grade-specific learning teams were used as a preliminary strategy for school-wide professional learning community implementation. While there is growing evidence of the transformative power of PLCs to promote cultural and systematic change and to increase student learning, the research literature has not been able to provide replicable processes for implementation. Further, there is a gap in research literature on studies where PLCs have been cultivated effectively and sustained on a large scale in high schools. Gaining deeper insights into the daily interactions of teachers inside classrooms and in schools and the "how" and "what" of professional learning community development within this complex, local research context informs professional knowledge, practice and school improvement efforts.

Professional practice implications. This study used learning teams to closely examine the process for cultivating "readiness" or developing and supporting teachers' transition to PLC in an urban-suburban restructuring high school. The challenge of implementing innovative change in American high schools is well documented in the research literature (Fullan, 2000, 2011; Hammack, 2004; Little, 1990; McLaughlin & Talbert, 2006; Siskin, 1997). American high schools have presented the greatest challenge and resistance to past efforts to break down the pervasive culture of privacy, egalitarianism, and isolation that have prevailed for more than fifty years (Hammack, 2004; Lortie, 1975).

As discussed in the review of literature in Chapter 2, moving toward a PLC at the secondary level must start with the strong influential subcultures that exist in the subject departments (Little, 1990; Siskin, 1997). These micropolitical structures often operate and maintain a loyalty among teachers and staff that is insular rather than communal (Achinstein, 2002; Little, 1990, 2003; Siskin, 1997,). Focusing on instituting learning teams as transformative vehicles to possibly eliminate or permute these departmental boundaries and to forge a bridge toward school-wide accountability and collective effort, while challenging, has great potential for improving pedagogy and student learning.

In this regard, the communities of practice (CoP) theoretical framework provided an important lens for observing and understanding the stages of development exhibited by the two learning teams during this research period and to anticipate RHS's future pathway toward school-wide professional learning community. Wenger et al. (2002) cautioned,

> [Organizations] can do a lot to create an environment in which [CoPs] can prosper: valuing the learning they do, making time and other resources available for their work, encouraging participation, and removing barriers. Creating such a context also entails integrating communities in the organization—giving them a voice in decisions and legitimacy in influencing operating units, and developing internal processes for managing the value they create. . . . If organizations fail to take active steps in this direction, communities of practice will still exist, but they are unlikely to achieve their full potential. They will tend to organize along friendship lines, or within local geographical or organizational contexts rather than cover the whole organization (p. 13).

This is evident in the strong influence exerted on the beliefs, attitudes, identity, and perceived self-efficacy of teachers in the subject departmental organization of high schools. It behooves school leaders to become aware of and to support the untapped sources of knowledge, skill, and potential for change in the informal communities of practice that exist in the departments and school wide.

Findings from this study suggested that the process of participating on learning teams presented initial challenges to the pervasive culture of privatization, isolation and individual concerns about purpose, expectations, and time. However, as the science learning team (SLT) and the social studies learning team (SSLT) progressed through the 14 weeks, members began to identify themselves as "teams," conversations developed and became more focused and engaging on important topics related to *instructional practice* (grading, formative assessment, subject matter and curriculum), *school structures* (scheduling, Ninth Grade Academy, class assignments, school discipline and climate), and *students* (student engagement, parent involvement, roles and responsibilities). This positive outcome highlights the attention that must be paid to the structure, organization, and facilitation for launching the learning teams. At the start of a new initiative, such as learning teams, principals and school leaders direct involvement and accommodation of factors such as release time, space, instructional resources, and when available, funding incentives are important considerations for increasing the impact of the teacher's collaboration and collegial work.

Findings for research question one suggested that the process for developing the two learning teams involved three phases: (1) the initiation of group identity as the teachers came together in weekly meetings to define a common purpose and direction (2)

the exploration of important topics and discussions focused on *How best to educate and support ninth graders*; and (3) the anticipation and possibility of continuing and expanding the learning team work through future school-wide PLC implementation. In this light, the learning teams demonstrated an essential aspect of communities of practice, that is, "the role of informal groupings initiated in response to the need to deal with a shared problem. . . . can and do transcend boundaries of departments, organizations, locations, and seniority . . . [and CoP] come into existence through the need to collaborate with those who face similar problems or issues for which new knowledge is required" (Denscombe, 2008, p. 276). In terms of a restructuring high school, facilitating learning teams at the grade, subject, or interdisciplinary level offers an opportunity to forge teaming and collaboration around pressing problems of practice, professional knowledge, and adult learning for improving student learning. Moreover, learning teams provide teachers the forum for discussing research literature, new instructional strategies, interventions to reach disengaged students, and to rethink and redesign lessons and curricula. Learning teams have the potential to revitalize teacher's curiosity and commitment to students and to encourage and empower their role in educational change and school improvement.

Professional learning communities are based on three "big" ideas: (a) a focus on student learning, (b) collaborative culture, and (c) a focus on results (Dufour,2004). Hord (1997) defined PLC as, "the professional community of learners, in which the teachers in a school and its administrators continuously seek and share learning, and act on their learning" (p. 10). Administrative efforts to incorporate site-based, self-directed, and classroom-centered professional learning teams build teachers' capacity and foster a

shared responsibility for ensuring all students' academic success. Study findings suggest that transitioning the RHS to a professional learning community will involve a deliberate, slow, ongoing process to change attitudes, beliefs, and behavior around the PLC principles of collaborative culture, student and adult learning, and results-oriented continuous improvement.

Theoretical Implications. This study examined high school teachers' readiness, (i.e., willingness and commitment) to engage in collaborative learning teams and action research as a pathway to improved instruction, learning, and school reform. Current school improvement research has emphasized whole scale, systemic efforts where the focus is on increasing "organizational capacity" and creating "learning systems." The collective actions of the group build internal organizational capacity to transform not only structural factors but more significantly to drive cultural change. Focusing on interdependency rather than on separate aspects of the school environment, the focus has shifted to collaborative professional learning, increased social capital development, strengthening collective efficacy, and systems-oriented school reform.

Findings from this study revealed that the two learning teams scored low on collective efficacy based on the results from the Collective Efficacy Scale–Short Form. Collective efficacy refers to the "shared perceptions of a faculty as a whole that they can have a positive impact on student achievement." After calculating a collective efficacy standardized school score of 378, it was rounded to 400. This standardized collective efficacy score indicated that the teachers ranked 84% lower in collective efficacy than the representative sampling of schools. While the two groups of teachers were regarded as high performing, competent, and generally empathetic regarding students' welfare, many

expressed frustration and a sense of inability to meet students' social and emotional needs that were associated with family backgrounds. At one of the meetings, a SSLT member defended the teacher's role and impact, "Our professional development and professionalism can only do so much." During a SLT meeting the discussion focused on tracking students and profiles of low and high achieving students, one teacher stated, "Empathy is often with the students and not with teachers. Teachers and administration have to be on the same page. There has to be consistency for student consequences and actions of adults."

Addressing the issue of collective efficacy presents a serious challenge for school leaders who need to motivate faculty and staff that feel overburdened, unsure, and unable to meet the increasing diverse needs of students. Often, the teachers lack the confidence in their ability individually and collectively to strengthen teacher-student relationships, to engage reluctant, struggling learners, and to ensure successful opportunities for all students to learn. When teachers recognize that working together offers collective professional benefits and collegial support to meet the complex challenges of daily practice, internal and external accountability, mounting social and political pressure for school reform, they are effectively functioning as a professional learning community. Principals who actively demonstrate care, encouragement, and promote a shared leadership approach and capacity building create a learning environment that benefits from the input and efforts of multiple stakeholders. Likewise, reaching out to and including families and community members strengthens and extends the school's external support systems.

Policy implications. In June 2011, NCTAF and WestEd conducted an analysis of nearly 200 articles and reports researching the impact of professional learning communities in STEM courses (science, technology, engineering, and mathematics). As a major finding, the STEM PLCs research study concluded that,

> Great teaching is a team sport. Performance appraisal, compensation, and incentive systems that focus on individual teacher efforts at the expense of collaborative professional capacity building could seriously undermine our ability to prepare today's students for 21st-century college and career success. Every school needs great teachers—but a school does not become a great place to learn until those teachers have the leadership and support to create a learning culture that is more powerful than even the best of them can sustain on their own (Fulton & Britton, 2011, p. 4)

At the school and district levels this finding has significant meaning and implies that coherence or "connectedness" between school and central office administrators has to be complementary and focused on developing the collective knowledge, skills, and competence of building level administrators, teachers, and staff. Even more critical is the material and technical support needed to sustain stable settings and provide adequate resources. Since the conclusion of my study in June 2011, the district has taken several steps to promote PLCs in all 11 schools. In the fall of October 2011, all principals, assistant principals, district supervisors, and department chairs participated in a full-day PLC training workshop. Following this professional development, the administrators began the process of introducing professional learning communities in each of their respective schools. This step is significant because it demonstrates a district commitment

to the professional learning of all faculty and staff. Such recognition of professional development that is situated within individual schools fosters bottom-up participation, mutual accountability, and ultimately, increases the social capital of the entire school community.

Limitations

There are at least five limitations that may have affected the outcome of this research study. First, a small number of 8 ninth-grade teachers participating on the learning teams represented the purposive sample. Given the small sample size and grade-specific group composition, generalizing findings beyond the local school site and context may be impractical. The predominant design of this embedded case study relied on a more holistic data collection strategy and the accurate feedback of participants' for the interviews, self-report questionnaires and quantitative surveys. Readers are cautioned to refrain from seeking *statistical generalization* but rather to understand that *analytic generalization* was the major goal of this research study (Yin, 2009, p. 38). That is, the results for the two learning teams were observed, described, and analyzed in relation to the CoP theoretical construct and the PLC conceptual model. Instead, readers interested in how the findings of this study can be applied to their own settings should consider the similarities and differences between the situated context of this study and that of the reader's specific context.

Second, the time period for the research project was shortened from six months to three months because of changes in school leadership and subsequent reorganization of administrative responsibilities and duties. As a result, the attempt at conducting an action research project was thwarted. Time did not allow for the learning teams to conduct a

complete cycle of an action research cycle: problem identification, gathering and analysis of data, planning an intervention, attempting the intervention, evaluating the outcome, revising and repeating the process. The late start for initiating the learning teams just prior to the last marking period may have increased some of the teachers' initial reservation to participate in what they perceived as a "mandated" and a "new initiative."

Third, low staff morale and the restructuring status of the high school may have contributed to teachers' reluctance, tentative trust and level of readiness to fully engage in the learning teams out of compliance rather than for personal and professional gains. Another aspect of this limitation was the ongoing conflict between the school district and the local community. There were strong supporters, and strong opponents, internally and externally, of the district, the administration, and the school board. The disputes and debates between different segments of the community and school stakeholders was probably a significant background factor that influenced teacher perceptions of the study and the viability of different approaches to school improvement.

Fourth, initiating learning teams in a strong traditional high school community where common planning periods were not uniform and norms for regular teacher team meetings were not established presented a formidable challenge. The schedule of a fifth 9th-grade science teacher, for example, made it unfeasible for her to attend the learning team meetings.

Fifth, my formal role as an assistant principal could have presented an undue influence on the teachers' honest feedback on the self-report surveys and questionnaires. At the same time, the use of the third-party interviewer to conduct the one-on-one

interviews and an independent transcriber were two purposeful efforts to reduce bias that might have influenced the teachers' participation and communication.

Recommendations for Professional Practice

Anthony Bryk, founding director of the Consortium on Chicago School Research, led a 15-year longitudinal study of Chicago school reform (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010). He identified five essential supports for school improvement. The 2010 study concluded that all five essential supports have to be present and strong for successful school improvement. Weakness in even one support, sustained over several years, undermined change efforts, and improvement rarely resulted. The essential supports included (p. 25): (a) a coherent instructional guidance system; (b) strength and efficiency of the school's professional capacity; (c) strong parent-community-school ties; (d) a student-centered learning climate, and (e) leadership that drives change. Reflecting on my study, which was conducted in the naturalistic setting of a restructuring high school, the recommendations for professional practice draw from the lessons of Bryk et al.'s work in a large urban school district.

The fifth essential support maintains that "leadership drives change." The first recommendation would promote the collaborative leadership of the principals and school administrators to take a lead role in building RHS' professional learning community.

1. Establish a learning team for school administrators and provide further training that will assist their efforts to model and support a culture of collaboration, trust, inquiry, and shared accountability in the high school. As the PLC model is new at the Ridgeview High School, faculty and staff will

need more explicit assistance to establish norms and protocols to launch and sustain momentum.

2. Embed learning into every aspect of the school calendar by shifting the focus of common planning periods, faculty, department meetings, and on-site professional development days to time for learning teams to meet, plan, create, investigate, inquire, and problem solve.
3. Integrate action research projects into the teachers' formal evaluation. This will encourage teachers' to develop their research skills and to investigate an instructional or school issue, topic, or concern. Teachers may have the option of working with one or more colleagues within or across disciplines.

Recommendations for Future Research

In this study, learning teams were initiated as a preliminary strategy to address and support high school teachers' transition to a school-wide professional learning community. Participation on the learning teams provided the two groups of teachers a new outlet for discussing and reflecting on problems of practice and school issues. While the findings were generated in a local context of one midsize urban-suburban restructuring high school, one recommendation for extending the study would be to conduct a longer study in one or more departments to assess both the effectiveness of the process and the relationship between teachers' learning team participation and student achievement.

Although I had proposed that the study would also involve teachers' participation in an action research pilot, that aspect was not successful. The teachers did not exhibit interest or initiative to conduct action research in an effort to examine and problem solve

issues of practice, student needs, or school improvement. Most of the focus in the brainstorming session for possible areas and interventions to address the inquiry *How best to educate and support ninth graders* was on recounting the shortcomings of students and families rather than seeking to reflect on or examine the instructional strategies, practices, relationships, or the impact of their professional influence and interactions with students.

Research studies to uncover and assess the current school culture and climate, levels of collective efficacy and collaboration, and professional concerns and learning gaps would provide important information and feedback to direct the most meaningful and relevant opportunities for professional collaboration and school improvement. Also through the use of quantitative survey research, ethnographic study, action research, or self-report questionnaires, the data generated would serve to establish an objective measure of where the school is operating compared to a higher functioning and aspired for future vision.

Other research questions for future investigation might include:

1. How to further subject departments' transition from isolated subcultures to school-wide focused and mutually accountable PLCs?
2. What aspects of subject departments can coexist and complement PLCs?
3. Do grade-specific interdisciplinary learning teams yield larger student academic gains?
4. To what extent does the cohesiveness of a PLC impact collective efficacy, student learning, and teacher practice?

5. How leadership is best shared to develop and sustain an effective professional learning community at in a high school?

Conclusion

Recent research studies have provided compelling evidence that teachers participating in "well-established and high functioning PLCs create a culture of success in schools, leading to better instruction and student learning gains" (Fulton & Britton, 2011). Assessing and addressing the readiness or willingness, commitment, and competence (Fullan, 2006, Weiner, 2009) of secondary teachers to engage collaboratively is an important first step for invoking school change and transitioning to an effective professional learning community.

The purpose of this study was to investigate the use of learning teams as a preliminary strategy for developing a PLC and to inform school-wide PLC implementation in a restructuring high school. Four research questions guided this mixed methods case study:

1. What was the process for developing the learning teams as a preliminary strategy toward PLC in a restructuring high school?
2. What start up strategies worked well for the learning teams? What challenges were confronted?
3. What were the readiness issues for teachers accustomed to working in isolation to engage in learning teams?
4. To what extent did the learning teams function as professional learning communities?

Significant paradigm shifts and a systemic approach for improving U.S. elementary and secondary schools are required to meet the complex and demanding current wave of large-scale school reform calling for national common core standards, curricula innovation, technological advancement, college and career readiness, and decentralization away from state to local district levels (Fullan, 2011; Glickman, 2002; Wilson & Berne, 1998). The traditional organizational structure of large comprehensive high schools: departmental divisions, teacher isolation, fragmented subcultures, alienation, and competing group interests have undermined student and adult learning and have thwarted school improvement (Hammack, 2004; Fullan, 2001, 2011; Little, 1990, 2002).

To this end, school reformers have touted the professional learning community (PLC) as a powerful pathway to build capacity and to "reculture" schools, that is, transform individuals' attitudes, beliefs, and actions to focus on learning, collaborative culture, results-oriented, and shared responsibility for school improvement (Eaker, Dufour, & Dufour, 2002; Fullan, 2001; Hord, 2009). Many secondary schools have begun to explore the possibility of developing a PLC, through teacher teams, also referred to as *learning teams*, *professional learning teams*, or *collaborative learning teams* (Lieberman & Miller, 2008; McLaughlin & Talbert, 2006; Wells, 2008).

For this study, a mixed-methods case study research design (Creswell, 2003; Yin, 2009) was conducted to provide a broad, multi-layered examination of two learning teams. The study was enacted both as an action research pilot for the learning teams and as a case study of teachers' readiness to engage in PLC. This mixed-methods case study was bounded in one urban-suburban high school and limited to a four month period from

March through the first week of June 2011. Over the course of this 14-week period, I convened and facilitated two learning teams involving a purposive sample of eight teachers from the Ninth Grade Academy—four teachers each comprised the social studies (SSLT) and science (SLT) learning teams in a restructuring high school. Meetings for the SSLT and SLT were held once weekly during the 45-minute fourth period common planning time, on Tuesdays and Thursdays, respectively. The SSLT met for 12 out of 14 meetings; the SLT met for 9 out of the projected 14 meetings.

Multiple sources of qualitative and quantitative data were collected and analyzed. Yin (2009) suggested six primary sources of evidence for case study research: documentation, archival records, interviews, direct observation, participant observation, and physical artifacts (p. 101). Qualitative data collection included *documentation* (learning team meeting agendas, meeting notes, attendance sheets, interview transcripts, research journal, and school reports), *participant observations*, and various *physical artifacts* (protocols, charts, worksheets, articles).

Four surveys provided descriptive and quantitative data: (a) Collaboration Survey (Killion & Roy, 2009); Learning Team Survey (NSDC, 2001); The Group Attitude Scale (Evans & Jarvis, 1986), and the Collective Efficacy Scale–Short Form (Goddard & Hoy, 2003).

Procedures that Creswell (2007) outlined for reporting and analyzing the collected qualitative data were modified by me (pp.156–157) and included: (a) creating and organizing files for data collection, (b) reading through text, making margin notes, forming initial codes, and (c) presenting in-depth picture of the case(s) using narrative, tables, and figures.

Data analysis was reported by research question and included narrative, direct quotes, tables, and figures describing the results. Auerbach & Silverstein (2003) presented a qualitative data analysis approach for beginning researchers. I employed a relatively standard approach to analyzing the qualitative data that including coding data, looking for key words, repeated topics and themes, and patterns. This process was guided by both existing theories and prior empirical research. However, the goal was not to support a theory or confirm existing research. Instead the goal was to gain deeper insight into the process of involving teachers in efforts to address significant problems confronting the school.

At the end of the 14-week research period a third party interviewer conducted semi-structured one-on-one interviews. Given that the researcher, as a school administrator, played a direct role as learning team facilitator, the third party interviewer was used to minimize any risk of compromising the participants' honest and frank responses. Seven of the eight teachers consented. One teacher declined. The third party interviewer, Ms. Langston (pseudonym), is a well-respected colleague and school social worker. On several occasions, Ms. Langston attended and observed the learning team meetings as part of an administrative internship. She was accepted as a neutral party, and was responsible for contacting the teachers, coordinating, and conducting the interviews. An interview protocol was developed by the researcher and reviewed with Ms. Langston. Initially, the researcher proposed using a focus group format to gain feedback from the learning teams. However, the timeframe was shortened with the last learning team meeting concluding in the next to last week of regular classes and before the end of year

local and state testing window. The teachers expressed concern and requested individual interviews as a more convenient option.

After gaining the participants' consent and signed confidentiality forms, Ms. Langston conducted the semi-structured interview. The researcher provided an interview protocol that consisted of 11 questions regarding the teachers' attitudes, perceptions, and feedback on the learning team experience. The individual interviews ranged from 20 to 30 minutes in length. Additional prompting for clarification or expansion on the answers was minimal. The interviews were professionally transcribed yielding 22 pages of text. Reponses to the semi-structured interview questions were analyzed and excerpts were compiled in a matrix according to the question category (e.g., PLC/collaboration, PLC/instructional practice, See Appendix C.). The interview transcripts and excerpted matrix were read over several times and coded by key words, repeating ideas, categories and themes.

In addition, the researcher maintained a binder containing the agendas, attendance sheets, protocols, professional articles, and notes compiled during the research period. Enlarged charts and a research journal were also generated. In Chapter 3 tables of learning team participants' demographic information and data sources collected by research questions can be found. Tables outlining meeting topics and agendas are provided in Chapter 4.

Findings for Research Question 1 suggested that the process for developing the two learning teams involved three phases: (1) the *initiation of group identity* as the teachers came together in weekly meetings to defined a common purpose and direction; (2) the *exploration of important topics and discussions* focused on *How best to educate*

and support ninth graders; and (3) *the anticipation and possibility of continuing and expanding* the learning team work through future school-wide PLC implementation. An overall related finding is that the school-wide implementation of a professional learning community at the Ridgeview High School will require deliberate, ongoing, supportive conditions and technical resources provided and coordinated at the building and district levels.

Research Question 2 study findings revealed that the following start-up strategies worked well for launching the learning teams. Structuring the learning teams by (a) identifying a specific grade level, department/subject areas, and a specific inquiry focus; (b) meeting in the teachers' classrooms; (c) establishing group norms; (d) having a facilitator; (e) Providing an agenda, using protocols, and professional literature; (f) charting feedback; and (g) deliberate effort to maintain transparency of learning teams' purpose and goals

The findings of the study indicated that the following challenges were confronted in launching the learning teams: (a) use and issues related to time; (b) issues of control; (c) openness to new learning and inquiry; (d) shared responsibility for academic and school improvement; and (e) establishing buy-in. Analysis of the qualitative and quantitative data sources yielded findings that considered the teachers issues of readiness as related to collaboration, group affinity and cohesion, and collective efficacy.

At the conclusion of the research period the teachers completed the Learning Team Survey, a self-report questionnaire, was used to assess the participants perceptions and feedback on their learning team participation. For Research Question 4, the Learning Team Survey provided a useful tool to evaluate to what extent the Science and Social

Studies learning teams exhibited key components of a professional learning community. Specifically, the PLC focus on learning (students and adults) and collaborative culture was assessed in *Section 6—Learning Team Activities and Tasks, Section 8—Teacher Growth and Development, and Section 10—Personal/Professional Outcomes*. Overall findings of the study indicate that the two learning teams functioned at an early stage of professional learning community development between Wenger's potential and coalescing stages. Participation on the learning teams served as a positive and promising preliminary strategy to introduce and transition to PLC school wide.

Public school education, particularly in poor, urban, or rural districts, has failed to provide all students with a rigorous, relevant quality education to meet the evolving needs and demands of the 21st century workforce and economy. Ensuring high-functioning, academically stimulating and innovative public schools that prepare all students will greatly depend on the collective efforts of whole school districts. Implications of the findings purport that transforming and reculturing schools into professional learning communities offers a pathway to advance student learning and improve underperforming schools. Taking heed from the lessons learned from a 15-year longitudinal study of school reform of Chicago Public Schools, Bryk and his associates (2010) have concluded that five essential supports have to not only exist to turnaround failing schools but that all five must be present to ensure sustainable change. Specifically, they assert that weakness in even one support, sustained over several years, undermined change efforts, and improvement rarely resulted. The essential supports included (p. 25): (a) a coherent instructional guidance system; (b) strength and efficiency of the school's professional

capacity; (c) strong parent-community-school ties; (d) a student-centered learning climate, and (e) leadership that drives change.

For more than three decades, American high schools have presented the greatest resistance to adapt to past and current school reform efforts (Elmore, 2006; Jerald, 2006; Wells, 2008). The successful and renowned professional learning community work of Dufour, Dufour, and Eaker (2005) at the Adlai Stevenson High School is nationally recognized and celebrated for academic accomplishments. They have made a compelling case for schools and districts that even at the secondary level the challenge of school reform is possible. Learning teams may provide a realistic means to desired end. In terms of a restructuring high school, facilitating learning teams at the grade, subject, or interdisciplinary level offers an opportunity to forge teaming and collaboration around pressing problems of practice, professional knowledge, and adult learning for improving student learning. Moreover, learning teams provide teachers the forum for discussing research literature, new instructional strategies, interventions to reach disengaged students, and to rethink and redesign lessons and curricula. Learning teams have the potential to revitalize teacher's curiosity and commitment to students and to encourage and empower teachers' role in educational change and school improvement.

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Appendix A

Interview Protocol

Name: _____Gender____
Date/Time:_____

School Name and Location, interviewee phone:
_____

Subject(s) taught:_____ Grade level:_____

Interview Protocol

Good morning/good afternoon. I am (third party interviewer) assigned to conduct this interview for a research study conducted by Cassandra H. Hyacinthe. The purpose of this case study is to examine the process of two groups of high school teachers' readiness to function as professional learning communities. As learning team participants, this interview is intended to gain your perceptions and feedback regarding the process of working collaboratively and how best to support a school wide PLC implementation. Do you have any questions at this time?

Thank you for agreeing to be interviewed. I appreciate you taking time to offer your feedback to this research project. Before we begin the interview, I would like to reassure you that this interview will be confidential and you will be given a pseudonym. The audiotapes will not be given to the researcher. The researcher will only have access to the written transcripts for data analysis. Do you consent to having this interview taped for purposes of transcription? If there is anything that you do not want to tape, let me know and I will stop the recorder.

Excerpts of this interview may be made part of the final dissertation, but under no circumstances will your name or identity be revealed.

Do I have your consent to proceed with the interview? If yes, please sign the consent form.

Interview questions:

a. Please tell me how long you have taught in this district? How many years in 9th grade?
b. How would you describe a professional learning community and its purpose?
c. In what ways do you see teachers in your department participating in a PLC?
d. What obstacles do you perceive would need to be addressed?
e. What benefits do you perceive would be derived from participation in a PLC?
f. After participating on the learning team in this initial phase of PLC formation, what feedback would you offer? For department and school wide PLC implementation?
g. What are your feelings about collaboration?
h. In what ways do you collaborate with your colleagues?
i. In what way do you perceive PLC may impact student achievement?
j. In what way do you perceive PLC may impact school improvement?

Appendix B

Participant Informed Consent Form/Video or Audiotaping

I voluntarily agree to be video/audio-taped during this research study conducted by Cassandra H. Hyacinthe, a doctoral student at Saint John Fisher College. I understand that the tapes will be used to gather information about teachers' readiness to participate in a professional learning community, and such information will be used to inform school wide implementation to support the school improvement action plan. All audio/video-tapes generated will be kept for approximately six months and will be securely stored at Mount Vernon City School District Board of Education headquarters. After the data is collected and transcriptions are made, the tapes will be destroyed.

_____ _____

My (Participant's) Signature Date

_____ _____

Researcher's Signature Date

Refusal to be Video/Audio-Taped

I do not grant consent to be video or audio-taped during this research study by Cassandra H. Hyacinthe, doctoral student at Saint John Fisher College. By refusing to be video or audio-taped, I understand that I may not continue to participate in this study.

_____ _____

My (Participant's) Signature Date

_____ _____

Researcher's Signature Date

Appendix C

Learning Team Interview Excerpts Matrices

Science Learning Team Interview Excerpts Matrix

Teacher	Mr. Jeffrey	Ms. White	Ms. Smith	Ms. Jones
Years' Teaching Experience	3 district; 3 9th grade	6 district; 3 9th grade	4 district; 3 9th grade	9 district; 9 9th grade
What is a PLC?	Collective planning, protocols, team work, interdisciplinary planning	"Every member has a shared vision . . . the same set of expectations for everybody in the building."	"Eventually it will be an asset to the 9th grade academy; we can raise a lot of issues that we have . . . work together to solve those issues and work together to make the learning experience better for 9th grade students who did not want to be part of the group."	Declined Interview
PLC/Implementation	Good idea teachers getting together on the same page; attacking problems as a group.	Start at beginning of school year;	Start at beginning of school year; work as a team (core teachers). Focus on the students	
PLC/Instructional Practice	Informal planning, discussion of students, labs, pacing, curriculum, and assessments	Teachers informally helping each other; learning from each other.	Experienced teachers helping new teachers. Time given to observe and mentor; hands on support.	
PLC/Professional Development	Articles helpful; self-directed learning from colleagues; watching and talking; collaboration	Informal PD; seeking out colleagues as needed	Teacher to teacher "A professional learning community atmosphere, it will definitely be beneficial."	

Teacher	Mr. Jeffrey	Ms. White	Ms. Smith	Ms. Jones
PLC/Collaboration	"I like collaboration."	"Collaboration is great." "We need to work as team members. Each person brings to the table a different set of ideas, and we can put that together." "We share resources and Talk about different ways of teaching; we share stories of success and failure; make recommendations."	Informal talking about content; not really working together—just conversations.	
PLC /Student Achievement	"Teachers work to get better and develop their repertoire of lessons and methods of dealing with students."	Teaching students about teamwork; way of working in society.	". . . a way to plan; help [students] who are struggling, a way to try new things."	Declined Interview
PLC/School Improvement	Better sense of community; decrease isolation	"Well, I don't know. That's a big question."	Professional community—fostering relationships, working together, [teachers and staff] will feel happier.	
PLC/Obstacles	School wide implementation as mandatory. Willing, quality participation.	Staff is "way too divided throughout the building, even in the department."	Time set aside during the school day to meet with the team. Establish at the beginning of the year. Teacher willingness to participate. Teachers' attitude about change.	
PLC Benefits	Teachers on the same page; developing relationships; conversations about students; cross-disciplinary collaboration/planning/ problem solving	Better networking. "We could actually learn that we have great resources amongst ourselves."	Help to build camaraderie and sharing between teachers.	

Social Studies Learning Team Interview Excerpts Matrix

TEACHER	Mr. Hill	Mr. Jacobs	Ms. Baker	Ms. Cook
Years' Teaching Experience	13 district; 1yr. 9th grade	19 years; 6 yrs. 9th grade	8 years; 2 yrs. 9th grade	13 years; 1 yr. 9th grade
What is a PLC?	Professionalism—working together, respect for one another, respect to and from administrators	"Teaming—someone from every major subject gets together and it allows you to keep a better eye on all the kids, academically and behavior-wise."	"It's a collaborative effort. Every member of the team has to have some idea as to what the goal of the team is and what he or she is trying to achieve."	"A PLC is one in which the teachers who participate are able to enhance their teaching methods or instructional strategies with the long-term goal of improving the student's learning."
PLC/Implementation	Dedicated leaders and teachers willing to work smarter and more efficiently. Encouraging teacher leadership.	"We don't have it right now. In the middle school it was math, English, social studies working together." "Start on the freshmen level."' "Make sure you team properly; try to get people who can work with each other."	Attention to the elements of time—how it is use and how teachers feel about time allotted versus mandated.	"We have always done [PLC} in the social studies department informally." "For school wide or department wide, we really need to focus as to why we're doing [PLC}, what we want to achieve and be realistic about what we can achieve. We have to have very specific goals at the beginning that are realistic and then branch out to larger things."
PLC/Instructional Practice	Sharing information, lessons, materials, develop assessments together.	"I don't want to just work with the bottom 15% because the top 15% needs help too."	"Here in the high school we're trying to get the students to succeed academically; we're trying to increase our graduation rates; we want them to sustain critical reading and such; and therefore, it's important that we have an open mind."	"I liked the exchange on our readings. I also felt like I was listened to by an administrator for the first time. Like I was able to state my feelings about things that need improvement. I was able to give suggestions, and I really felt like I was part of the decision making process. So for me, I thought that was important."

TEACHER	Mr. Hill	Mr. Jacobs	Ms. Baker	Ms. Cook
PLC/Professional Development	"Our professional development and professionalism can only do so much."	Referred to article, "Focus on 15%," as offering some useful suggestions and other suggestions that were old stuff rehashed with new terms and buzzwords.	"Teachers need to try to enhance [students], enrich them, and give them the skills they need to be successful." "To look at [students] holistically, to look at their background, to look at what culture they come from as well school."	On a more formal note, the way I see us participating is to have done in such a meaningful way that we address the needs of our students, especially, those who are not as successful as we would like them to be."

TEACHER	Mr. Hill	Mr. Jacobs	Ms. Baker	Ms. Cook
PLC/Collaboration	"Social studies department—we're very strong in terms of collaboration." "We share ideas, we share materials—it is a pretty first-degree effort." "Collaboration could be a good thing, if it's done properly."	"I don't have a problem with it. You either fight it or go along with it." "It has basically been with other social studies teachers here in the 9th grade academy. We share our resources. We've collaborated on ideas and thoughts and turned them into best practices."	"I like collaboration." Without the team, you stand alone, and when you stand alone, you don't have strength."	"In the past, the collaboration has been sharing information or resources for instruction in the classroom. Sometimes it's information on students." "This is my first time in the 9th grade academy; the other social studies teachers and I don't have a common period to engage in a lot of dialogue but we share mostly reading materials." "I do collaboration for inclusion, which I have done in the past, and I have sections of integrated classes this year. So I have been collaborating with my co-teachers." "I would also like to see interdepartmental collaboration because many times what we're teaching in social studies can be augmented or supplemented in the English, science, and even mathematics classes."

TEACHER	Mr. Hill	Mr. Jacobs	Ms. Baker	Ms. Cook
PLC /Student Achievement	"PLC can be great benefit to students." "We need to find ways to motivate the students to make them more committed."	"Once [students] find out that their teachers are talking to one another and we're all on the same page, meeting all the time, talking about progress and academics, I think it could be effective to the students."	Referred to article, "Focus on 15%, and how it advocates meeting individual student needs, such as physical, social, emotional, that my impede academic progress.	"I want to see a PLC that Really targets not only successful students but students who are really struggling. And come up with ways that can help them. They need literacy support, whatever support they need so that they can become more successful . . . because some of the students this year are really struggling."
PLC/School Improvement	"A good school should have strong teachers, teachers that collaborate, teachers that can work well in a team and independently."	"Students knowing they're going to be followed and monitored for four years, maybe it might put a little more extra . . . kick in their pants to let them know that people are around them, ah, maybe it will help avoid students falling through the cracks."	PLC serves as a resource.	PLC focused on students and the support they need. "If we can engage students, if we can get their attention, and provide them the support. We need parents to be part of our PLC also."
PLC/Obstacles	"We don't seem to be acquiring the materials that we need—updated materials." "We don't need administrators to coordinate our efforts but see how we do things, and if he or she can add anything . . . that would be nice."			

TEACHER	Mr. Hill	Mr. Jacobs	Ms. Baker	Ms. Cook
PLC Benefits	"Collaboration will make us better teachers and will help us service the young people to a much greater effect."	"Closer monitoring of the students . . . once four or all five teachers get together."	"Understanding other people's perspectives and what their ideas are, what suggestions they might have . . . what challenges the [students] may have. Having the reciprocity of the team."	"If we do it the right way and carry it through, for the teachers, I see an opportunity to learn always from our colleagues, learn new methods and strategies."

Appendix D

Letter to Research Participants

Dear Research Participant:

My name is Cassandra H. Hyacinthe and I would like to invite you to participate in an action research study that I am conducting. This research project is part of the requirement for the Education Doctorate in Executive Leadership at Saint John Fisher College. To confirm my status as a doctoral student, contact Ronald D. Valenti, Ph.D., Director, School of Education, at (914) 654-5389.

The purpose of this study is to examine the process of two teacher learning teams in the initial phase of professional learning community formation. Employing a mixed methods research design, I will collect qualitative and quantitative data to examine the process of two groups of high school teacher's readiness to function as professional learning communities and to inform a strategy for school wide implementation in a restructuring high school.

The research period will extend from the date of IRB approval through August 2011. Data will be collected from meetings, surveys, artifacts, and focus groups of each learning team to analyze the process and to document the impact on the teachers' attitudes, beliefs, actions, and collaboration toward the formation of a professional learning community.

As the MVHS Assistant Principal of curriculum and instruction, I am fully aware that my position of authority may be perceived as interfering with my role as facilitator-participant in this action research project. At any time, you are not obligated to participate nor shall you encounter any negative repercussions for your decision to withdraw. In an effort to maintain your anonymity, I will undertake the following actions:

1. In each learning team, participants will be assigned a pseudonym. All surveys will have a random number code. A third party will coordinate, distribute, and conduct the surveys. The researcher will only receive the completed data.

2. For the focus groups, a third party will set up, record, and mail the audiotapes to
the professional transcriptionist. The audio tapes will be transcribed and then destroyed upon completion of the research study. The researcher will obtain only the written transcripts, pseudonyms will be used to protect individual

confidentiality and identities. All documents collected will be kept for the required period of time as specified by Saint John Fisher College Institutional Review Board and secured in a locked filing cabinet.

I will be submitting this research study to Saint John Fisher College in partial fulfillment for an Education Doctorate in Executive Leadership. Research findings may also be disseminated in journal articles, presentations, and professional publications. A copy of the final report will be maintained at Saint John Fisher College and available online in the Proquest Dissertation database. Access and distribution will be unrestricted.

You are not compelled to participate in this research study. If you choose to participate, you are free to withdraw at any time without prejudice. If you would like to participate please contact me at Hyac24@aol.com or at (914) 588-4298.

Sincerely,

Cassandra H. Hyacinthe
Saint John Fisher College at College of New Rochelle
Doctoral Researcher