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Teacher Collaboration as Professional Development in a Large, Suburban High School

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TEACHER COLLABORATION AS PROFESSIONAL DEVELOPMENT IN A
LARGE, SUBURBAN HIGH SCHOOL

by

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A DISSERTATION

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TEACHER COLLABORATION AS PROFESSIONAL DEVELOPMENT IN A
LARGE, SUBURBAN HIGH SCHOOL

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This qualitative study explored the impact of teacher collaboration in a professional learning communities (PLC) school on teacher self-efficacy. Through the collection and analysis of personal interview data from 20 teachers in a large, suburban Midwestern high school, the impact of structured teacher collaboration was evaluated for its impact on changes in teachers’ instructional practices, their feelings of responsibility for student learning, positive adult interdependence, and changes in teacher self-efficacy. Experts in educational professional development identify the importance of sustained, collegial learning. This study explored the structure of one high school’s professional collaboration model, the measures in place for goal-setting, action research, implementation of instructional strategies, and reflection and evaluation of strategy success. Qualitative data were collected through personal interviews from 20 participants of varying levels of teaching experience, with participants representing content areas. Data from these interviews was organized and shared as it related to each of three common themes that emerged during data analysis: collaboratively developed mission, vision, values, and goals; the positive interdependence of teachers; and a focus on continuous improvement. Data from each of these themes are shared separately. An in-depth look at teacher perceptions, including an explanation of the school’s collaborative
professional learning structure is provided. The findings of this qualitative study demonstrated a structured approach to teacher collaboration with a focus on student learning outcomes is necessary to note gains in teacher self-efficacy. The data also revealed that a system of shared leadership increased the efficiency of the collaboration model in this school’s PLC structure.
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Chapter 1

Introduction

Professional educators are charged with the weighty responsibility of preparing all of this country’s children for the world beyond high school, be that the world of work, military service, post-secondary education, or other vocational pursuits without the benefit of a succinct, collaborative professional development system. In working to meet the enormity of this charge, teachers seek effective, meaningful modes of professional development through which they gain instructional expertise and build upon their breadth of professional knowledge. Professional development opportunities can be expensive and are often delivered in disconnected sessions, which limit their impact on professional practice or professional knowledge. However, sustained instructional collaboration that allows teachers to enter into focused examination of instructional development is scarce in U.S. schools, particularly at the secondary levels. At a time when federal legislation has mandated proficiency levels for student achievement, U.S. schools struggle to train teachers in the pedagogical methods that will support them in their instructional endeavors.

In keeping with the intense focus on school reform models, professional development opportunities are marketed to educators, complete with a litany of promises to improve student achievement, address the social justice needs of students and schools, and increase the proficiency of classroom instruction. There is no question that professional development is a critical part of any school reform model, but most professional development provided to teachers is the traditional, single conference or workshop offering, and offers no sustained program of study and is absent any type of
implementation accountability. Many studies show that it is only through participation in sustained, collaborative professional learning models that student achievement demonstrates gains. Scribner, Sawyer, Watson and Myers (2007) describe how collaborative interactions are an integral piece of the school reform puzzle:

Educational leadership involves the practices of multiple individuals and occurs through the complex network of relationships and interactions among the entire staff of the school. The distributed leadership perspective helps us to understand how the . . . teacher teams are embedded in an interactive network of interdependent school activities that collectively constitute leadership (p. 68).

Unfortunately, much of the professional development available to educators is not high quality, is fragmented, and is more frustrating than inspiring. Although most professionals know and understand that much of what is offered as professional development in schools is inadequate, Nieto (2009) points out that these obviously inadequate offerings remain prevalent in most schools. Half-day and whole-day professional development activities are “notoriously unproductive” and are frustrating events in which an administrator chooses a topic and where teachers are simply a “captive audience” (p. 10) rather than engaging in any type of critical learning that will impact practice.

Miles (1995) of the Center for Policy Research takes a concurring stance, finding most professional development is pedagogically naïve, a demeaning exercise that often leaves its participants more cynical and no more knowledgeable, skilled, or committed than before. And all this is
accompanied by overblown rhetoric about ‘the challenge of change,’ ‘self-
renewal,’ ‘professional growth,’ ‘expanding knowledge base,’ and
‘lifelong learning’ (p. vii). (Gigante & Firestone, 2008, p. 441)

Teachers in many schools have come to accept a certain level of professional
isolation. They seek ideas from books, the internet, a few workshops or conferences, and
from one or two teachers with whom they share a close relationship. This constitutes the
model of professional learning to which most educators are accustomed. However, with
increased pressure for student achievement, educators are struggling within this time-

bound system of inadequate professional development. Robbins and Alvy (2003) point
out that the “go it alone” mentality of many schools and districts can be seen in the
“Teacher of the Year” or “Staff Member of the Month” awards that highlight the
individualism and isolation of the profession (p. 135). The new focus on schools as
“collaborative workplaces” and “communities of learners” has prompted teachers and
administrators alike to examine the roles of professional learning and instructional
supervision in the context of the school, as well as prompting an increased focus on the
value of collaboration as a means of professional growth (Robbins & Alvy, 2003).

Roland Barth, the director of the Principal’s Center at Harvard University, said,
“Four years of public school teaching—and 10 years as a principal—convince me that the
nature of relationships among adults who inhabit a school has more to do with a school’s
quality and character, the accomplishments of its pupils, and the professionalism of its
teachers than any other factor” (ctd. in Robbins & Alvy, 2003, p. 136). In this vein,
Darling-Hammond, said that realizing school improvement comes from “continual
learning groups” and the pursuit of “collective . . . explicit goals for student learning”
(Schmoker, 2005, p. xiii) is critical for improving professional practice. Darling-Hammond further says that it is not the dynamic leader that brings about positive changes in a school, it is the “collaborative structures for success that maintain a press for ambitious teaching and academic achievement” (ctd. in Schmoker, 2005, p. xiii). Leadership, without question, must support a collaborative model of professional learning and must ensure all participants are accountable to the collaborative work of the group, and that this work reaches the classroom level, impacting student learning.

The need for a transformed model of professional development for educators has never been greater. The world we live in is one of instant accessibility—through texts, email, cell phones, web cams and a myriad of other means. It follows, then, that teaching also looks different than it did a generation ago, though professional development opportunities have not changed at the same pace. Lieberman and Mace (2008) said in an open letter to President Barack Obama “Teaching as telling is no longer appropriate for a knowledge society that needs students who are prepared in problem solving, adaptability, critical thinking, and digital learning” (p. 226). With the overt criticisms aimed at the current professional development offerings in public schools, it is time for school leaders to implement the kind of effective professional development models that are research-based, rather than those that DuFour and Eaker (1998), Elmore (2004), and Hawley and Valli (1999) call “shallow, fragmented, unfocused,” and “based more on educational fads [rather than] solid research” (ctd. in Gigante & Firestone, 2008, p. 440). A well-structured, effective model of instructional collaboration fills the void left by traditional professional development and provides teachers with the professional learning that has a profound impact on the instructional practice.
What, then, is the definition of highly effective instructional collaboration? DuFour (2005) defined “powerful collaboration” as a “systematic process in which teachers work together to analyze and improve their classroom practice” (p. 36). This kind of collaboration sees teachers working together toward commonly established learning goals, addressing common research questions, and determining if instruction is meeting the needs of all learners. The quality of collaboration as a mode of instructional professional development is a recurring theme in literature. This theme, coupled with the understanding that positive teacher efficacy has been shown to correlate with improved student achievement, will be used to guide this study of the impact of instructional collaboration on teacher efficacy.

Purpose Statement

Given the importance of meaningful, sustained professional development opportunities on teacher effectiveness, it is important to understand teachers’ experiences with instructional collaboration. Therefore, the purpose of this case study was to understand the nature of collaborative professional development and its effect on teacher efficacy.

The central question for this study was: What is the impact of instructional collaboration on teachers’ instructional practices and on teacher efficacy? Specific research questions included:

1. What types of instructional practice have been changed as a result of teacher collaboration?
2. What types of experiences do secondary teachers have with collaboration as a model for professional development?
3. Has teacher efficacy increased as a result of instructional collaboration?

4. Does instructional collaboration prompt teachers to evaluate their instructional practices and seek new approaches to instruction?

5. What has been the value of instructional collaboration for teachers?

6. Does collaboration align with professional development models from the National Staff Development Council?
Chapter 2

Literature Review

To understand the nature of collaboration as a model of effective professional development for teachers, one must examine the need for effective professional development for educators, the structure of effective collaboration models, how adult learning needs impact the effectiveness of professional development, and the effect of collaboration on teacher efficacy.

Recent Developments Increasing Professional Development Needs.

The increased levels of accountability focused on public schools and their administrators is borne by several studies, reports, and legislation directed at improving student achievement levels for students in all of America’s public schools. This is not a recent development, as similar reports and calls to action have been issued for decades. These reports have made recommendations regarding every facet of the educational program. The 1983 report, *A Nation at Risk* (National Commission on Excellence in Education), included a recommendation regarding the necessity of professional development for school leadership, since school leaders play a critical role as instructional leaders who help establish the models for professional learning for teachers in their schools:

Principals and superintendents must play a crucial leadership role in developing school and community support for the reforms we propose, and school boards must provide them with the professional development and other support required to carry out their leadership role effectively. The Commission stresses the distinction between leadership skills involving persuasion, setting goals and developing community consensus...
behind them, and managerial and supervisory skills. Although the latter are necessary, we believe that school boards must consciously develop leadership skills at the school and district levels if the reforms we propose are to be achieved (Recommendations).

Although this recommendation was made in 1983, little transformation of professional development programs followed. A report issued by The National Staff Development Council in 2000, *Learning to Lead, Leading to Learn*, advocated for professional development that “is long-term, planned, and job-embedded; focuses on student achievement; supports reflective practice; and provides opportunities to work, discuss, and solve problems with peers” (Houle, 2006, p. 146), but most educational practices in schools have remained static.

In 2001, federal No Child Left Behind (NCLB) legislation placed additional accountability measures on schools, culminating in 2014 when 100% of school children in the United States are required to rate as proficient on math and reading assessments. For all students to achieve learning proficiency in mathematics and reading, large-scale changes must be made to the current educational models being followed by schools. Sally Kilgore (2005) reported that, while there is a comprehensive body of research related to comprehensive school reform, and, although comprehensive school reform is written into the federal No Child Left Behind legislation, discussion of the topic is largely absent from any reports related to the educational legislation. All of these recent changes in educational accountability come in stark contrast to the traditional role of professional development in schools. As such, teachers are not adequately skillful in leading the large-scale change initiative necessary for achieving 21st century student achievement targets.

Schools are centers of learning both for students and adults. For educators, the process of professional learning is one that is traditionally unfocused and based upon the choices individual educators make for themselves. This inconsistency of professional
development within most schools does not contribute to effective professional learning or lead to improved instructional practice. Fullan (2006) establishes that the sustainability of school reform lies with leaders who initiate system change and is accomplished by school leaders who bridge relations between schools and communities (ctd. in Sui, 2008). Fullan (2006) believes “schools are complex adaptive systems that undergo self-organization during educational change” (Sui, 2008, p. 154). As members of the adaptive organization, teachers adapt their behaviors to conform to institutional pressures. Schools need leaders who are willing to initiate reforms in school management structures, changes in communication patterns, and school culture. This is more likely to happen when school administrators who practice distributed leadership lead those changes. Student achievement lies in the hands of independent teacher choices and the instructional leadership skills of school administrators. Unfortunately, neither group is practiced in collaborative learning models, their importance, or how to construct them in schools. Faced with these challenges and the day-to-day weight of operational responsibilities, professional development models remain disjointed. Datnow and Castellano (2001), Fullan (2006), and Murphy (1994) identify the school principal as one of the most important factors in the successful implementation of educational reform (ctd. in Sui, 2008). Professional development for school leaders, however, is just as fragmented and haphazard as that of classroom teachers, leaving them with no strong models to emulate.

The principal’s role is critical in the development of a collaborative culture that empowers teachers (Sui, 2008). Research reports that a principal must be seen as an instructional leader at the school site for change to be effected; thus the school leader is a
A key indicator in determining whether or not implementing a collaboration model will be effective (Chance & Segura, 2009). Robbins and Alvy (2003) further underscore the principal’s role in establishing a collaborative community of learners. School leaders must promote trustful, honest relationships with faculty members in order to establish a culture that satisfies the adult learner’s “innate needs and desires to improve, grow, and learn” (p. 101).

School leaders must establish an urgency for teachers who are entrenched in their classroom lives to participate in sustained, collegial collaboration. A driving motivation behind teacher interaction lies in Newman and Associates’ (1996) assertion that ‘authentic’ work focuses on ‘urgent teaching issues with direct relevance to the classroom (Hindin, Morocco-Cobb, Arwen-Mott, & Matta-Aguilar, 2007, p. 371). Grossman, Wineburg, & Woolworth (2001, p. 793) explain, “Learning from colleagues requires both shifts in perspective and the ability to listen hard to other adults, especially as these adults struggle to formulate thoughts in response to challenging intellectual content” (Hindin, et al., 2007, p. 372). Additionally, the beneficial nature of interactive dialogue expands the expertise of individuals, utilizing the pooled experiences of multiple people. Professional development is one of the venues teachers utilize to remain focused upon the “sense of mission; solidarity with, and empathy for, students; the courage to challenge mainstream knowledge and conventional wisdom; improvisation; and a passion for social justice” (Nieto, 2009, p. 9) that prompted many to enter education in the first place. O’Neill and Conzemius (2002) say that “schools showing continuous improvement in student results are those whose cultures are permeated by: a shared focus, reflective practice, collaboration and partnerships and an ever increasing leadership capacity characterized
by individuals who focus on student learning, reflect on student assessments and learn as a collaborative team” (ctd. in Robbins & Alvy, 2003, p. 136).

With the intense focus on school reform models, Scribner, Sawyer, Watson, and Myers (2007) examine how collaborative interactions are an integral piece of the school change puzzle, iterating that much of the professional development available to educators is not high quality, is fragmented, and is more frustrating than inspiring. Although most professionals know and understand that much of what is offered as professional development in schools is inadequate, Nieto (2009) points out that these obviously inadequate offerings remain prevalent in most schools. Half day and whole day professional development activities, states Nieto, are “notoriously unproductive” and are frustrating events in which an administrator chooses a topic and where teachers are simply a “captive audience” (p. 10). Rather than being engaged in any type of critical learning that will impact practice, teachers are subjected to presentations that have little guarantee of implementation within the classroom instructional context. With these types of offerings, it is difficult to begin or sustain the school reforms touted by professional development marketing, which promises transformed school processes and student learning outcomes, which Gigante and Firestone (2008) call overblown rhetoric about ‘the challenge of change,’ ‘self-renewal,’ ‘professional growth,’ ‘expanding knowledge base,’ and ‘lifelong learning’” (p. 441).

Effective Collaborative Professional Development Structures

Research consistently points to collaboration as a model of professional development that substantially impacts instructional practice and improves
student achievement outcomes. Collaboration by professional teaching faculty is one component of the popular Professional Learning Communities (PLC) school reform model. In this model, teachers are collaborative in their development of instruction, assessments, and examination of student work, seeking to determine essential learning outcomes and working to ascertain the best course of action for students who do not master essential learning outcomes or objectives. DuFour, Eaker, and Dufour (2005), who are leaders of the PLC reform model, state:

The use of PLCs is the best, least expensive, most professionally rewarding way to improve schools. In both education and industry, there has been a prolonged, collective cry for such collaborative communities for more than a generation now. Such communities hold out immense, unprecedented hope for schools and the improvement of teaching (ctd. in Gajda & Koliba, 2008, p. 134)

Further, they find that the very act of placing teaching and learning at the heart of the professional learning teachers are engaging in is crucial to the positive movement of student achievement in a school. It is through building the capacity of teachers that the focus of the school becomes student learning.

Fullan, likewise, stresses the importance of collaboration as a means of promoting ongoing adult learning:

The ability to collaborate—on both large and small scale—is one of the core requisites of post modern society . . . [In] short, without collaborative skills and relationships it is not possible to learn and to continue to learn as much as you
need in order to be an agent for social improvement. (ctd. in DuFour & Eaker, 1998, pp. 17-18)

Darling-Hammond, Wei, Andree, Richardson, and Orpanos (2009), found that “sustained and intensive” (p. 43) professional development is correlative to student achievement gains. As a signature trait of job-embedded professional development models that center upon sustained collegial collaboration, are critical to school improvement. The intensity of professional development noted in the study is striking in that it ranges from 30 to 100 hours in a six to 12 month timeframe (p. 43). This contrasts greatly with the one-day or two-day workshop or conference model that is available through traditional professional development. The researchers further assert, “collaborative approaches to professional learning can promote school change that extends beyond individual classrooms” (p. 44).

There is also substantial support for collaborative models for teachers’ professional learning in studies comparing international student achievement. In a study of nations that posted high achievement on the Programme for International Student Assessment (PISA) and the Third International Math and Science Study (TIMSS), the National Staff Development Council identified the professional development opportunities provided for teachers in nations with high student assessment scores (Wei, 2009). The common features of these nations’ plans included:

- Time for professional learning and collaboration built into teachers’ work hours.
- Ongoing professional development activities that are embedded in teachers’ contexts and focused on the content to be taught.
- Extensive opportunities for both formal and informal in-service development.
- Supportive induction programs for new teachers.
- School governance structures that involve new teachers in decisions about curriculum, instruction, assessment, and professional development (Wei, 2007, p. 29).

Barth (1990) concurs with the tenet of job-embedded professional development, “I believe the schoolhouse itself is the most powerful context for the continuing education of educators” (ctd. in Robbins & Alvy, 2003, p. 7). Wei (2009) says that despite this understanding of other nations’ successful professional development models that have resulted in high levels of student learning and content proficiency, U.S. schools are slow to react, with few moving toward professional collaboration that focuses intensely on content and collegial interaction that is known to produce great effects on student success (p. 29). As Lieberman and Mace (2008) point out, student learning is in need of improvement, and teacher learning is one thing we can address to improve it. Teacher learning hinges upon the culture of the school, as educators react to the influences of the culture and climate of the school in which they work. Robbins and Alvy (2003) assert that a school’s culture influences the professional development activities of its faculty, among other things. Collaboration, as a model for professional development, helps establish a culture of learning for the
adults in a school that elevates the importance of reflection upon professional practice in a way conferences, workshops, and other short-term professional development opportunities cannot. Sustainability, then, with a deliberate focus upon action research related to professional practice, instructional design, and student learning outcomes, is much greater when schools build a collaborative model of professional development.

Gajda and Koliba (2008) cite the National Board for Professional Teaching Standards (2004) and the National Commission on Teaching and America’s Future (2003) in their findings that “instructional quality and school effectiveness depend on the degree to which teachers work in a professional partnership with their colleagues” (p. 133). The American Federation of Teachers, a large teachers union, also supports the practice of focused teacher inquiry as a method for reaching student achievement goals (Gajda & Koliba, 2008). Furthermore, the National Staff Development Council (2005) “considers teacher collaboration the foundational element of any successful professional development effort and asserts that staff development that improves learning for all students organizes adults into learning communities” (ctd. in Gajda & Koliba, 2008, p. 134).

Data collected in research conducted on American schools supports assertions made by the findings of international studies and the statements issued by educational agencies and unions. Rosenholz (1989), in a study of 78 schools, found that schools that were moving forward in terms of student achievement were “characterized by a shared purpose and direction, teacher collaboration,
teacher on-the-job learning, and teacher certainty (efficacy)” (ctd. in Robbins & Alvy, 2003, p. 136). Rosenholz noted:

In the choreography of collaborative schools, norms of self-reliance appeared to be selfish infractions against the school community. With teaching defined as inherently difficult, many minds tended to work better than a few. Here requests for and offers of advice and assistance seemed like moral imperatives and colleagues seldom acted without foresight and deliberate calculation. Teacher leaders . . . reached out to others with encouragement, technical knowledge to solve classroom problems, and enthusiasm for learning new things. (ctd. in Robbins & Alvy, 2003, p. 136)

International education reform researcher Barber (2009) concurs: “Where you really want to get is . . . where professional learning is absolutely embedded in the practice of school. There’s time in the school day, there’s time in the school year. There are teams of teachers working together, planning lessons, reviewing student work, comparing student work from different classes, and trying to understand why certain pedagogies seem to be more effective than others” (p. 14).

**Teacher/Adult Learning Through Professional Interaction**

As the issues and challenges facing school personnel have changed exponentially, professional development offerings to help educators deal with these changes have not kept pace. Professional development, according to Peterson (2002), is most commonly
found to be structured as “one-shot workshops,” with more substantive training needing to be designed as “all-day and multiple sessions over an entire year” (p. 216). Although the “one-shot workshop may leave the teachers feeling inspired, they generally return to their schools unprepared to implement change and inadequately educated on the effective implementation of a new instructional practice” (Evans & Mohr, 1999, p. 530). Further still, there is no accountability to implement any of the learning gained from such one-shot workshops, with many teachers returning to school to make few, if any, changes in instructional practices as a result of these professional development offerings. Although it is important to engage in professional collaboration, it is notable that collaborative relationships gain traction over time, when the same group of teachers have engaged in collaboration for extended periods of time, because “the longer experience with a cohort group can have a greater impact on learning” (Peterson 2002, p. 216).

The shift toward teacher collaboration is happening due to an increased understanding that, as teachers work together, “they will express varied perspectives, reveal different teaching styles and experiences, and stimulate reflection and professional growth” (Hindin et al., 2007, p. 349). It is also a fact of the modern workplace that all professionals must strive for continuous improvement, with reflection upon personal practices a key piece of the learning process, because without it, adults and children have difficulty constructing meaning (Vygotsky, 1978; John-Steiner & Mahn, 1996; Greenleaf & Katz, 2004, ctd. in Hindin et al., 2007).

Shared conversation centered upon professional practice is important for all teachers, but novice teachers may gain measurably more from the experience, as they benefit from an extension of mentoring that rarely exists after student teaching (Hindin et
al., 2007). Collaboration affords teachers an opportunity to come together in an effort to improve practice, and through this effort to assist novice educators, many veteran teachers also find a renewed interest in their craft, which may have been flagging or on the verge of burnout prior to the experience. The formation of teacher teams, such as those required by collaborative professional development models, serves to combat the sense of frustration and feelings of isolation that grow when teachers do not have supportive and reflective collaborative partners. Nieto (2009) finds that an important condition of professional development “is a climate of openness, shared decision making, and collaboration in the school,” all of which are fostered in an environment where teachers are empowered to develop, implement and reflect upon topics that interest them and relate directly to their instructional and intellectual needs (p. 11).

Collaboration has powerful implications for collective learning and building consistent educational practices within schools. Darling-Hammond and McLaughlin (1996) said the “key to this kind of professional growth is structures that break down isolation, empower teachers with professional tasks, and provide areas for thinking through standards of practice” (ctd. in Hindin et al., 2007, p. 350). These interactive networks in schools provide opportunities to develop leadership capacity in teachers. Scribner et al. (2007) add that “leadership is not only found in formalized roles; it emerges from informal relationships as well” (p. 68).

Hatch (2007) asserted “collaboration brings teachers together to assess their students’ understanding; design, plan and implement new instructional practices; and reflect on their own teaching” (p. 350). In the collaborative setting, “teachers must reflect upon their instruction and their specific interactions with students, which is a
component required if instructional practices are going to change” (Hindin et al., 2007, p. 351). This model of team interaction for educational decision-making purposes, in the form of the professional learning communities model, is “likely to be effective and enduring when those responsible for its implementation are included in the decision-making process” (Scribner et al., 2007, p. 71). Further, Wei (2009) finds that action research is a relatively common practice in European and Asian schools, which fare far better in terms of student outcomes on international assessments.

Collaboration is a practice heavily emphasized by the professional learning communities model, though there are varying systems schools utilize to achieve teacher collaboration. Essentially, collaboration is a constructivist, inquiry-based practice for adult learners. A collaborative school culture allows for “the possibility of individual transformation as well as the transformation of the social settings within which individuals work” (Grossman, et al., 2001, p. 948). Meirink, Meijer, and Verlopp (2007) also find that collaborative settings such as the professional learning community are preferred in most schools as a forum to facilitate the exchange of ideas and to assist in the formulation of common instructional designs and assessments (p. 146). Scribner (2007) applies distributed leadership theory to collaboration as a way to measure the effect of teacher leadership and teacher efficacy that grows as a result of collaborative structures in high schools.

Meirink et al., (2007) cites Fishman, Marx, Best, and Tal’s (2003) research that points to the understanding that “teacher learning is often conceptualized as a change in cognition (knowledge, beliefs, attitudes, emotions) that can lead to changes in teaching practice” (Meirink et al., p. 147). Meirink (2007) found that the professional learning
community concept of teacher interaction stimulates changes in teacher cognition and leads to change in teachers’ individual instructional practices. It is through the interactions of the individuals in a collaborative group that teachers can “become aware of or question their own (tacit) beliefs and understandings” (Meirink et al., p. 147).

Putnam & Borko (2000) point out that group learning is further enhanced when people with diverse ideas, conceptions, and opinions interact (Meirink, 2007, p. 147). Langer and Colton (2005) say that one result of teacher collaboration is “collective efficacy,” (p. 25) whereby teachers take on the belief that they can make a positive impact on instructional practice and student learning together.

Components of a Collaborative Culture

Robbins and Alvy (2003) point out those schools with effective collaboration models focus ultimately on student learning. When the true spirit of collaboration exists in a school, there is a shared responsibility for all facets of learning, from designing curriculum to diagnostically assessing students’ learning needs. Because true collaboration takes time to develop, many schools have varying levels of implementation of effective collaboration, which has varying levels of effect on student learning.

Hargreaves and Dawe (1989) define four levels of collaborative structures within schools:

- **Fragmented individualism**—the traditional form of teacher isolation
- **Balkanization**—consisting of subgroups and cliques operating as separate subentities
Contrived collegiality—leading to a proliferation of unwanted contacts among teachers that consume already scarce time with little to show for it

True collaborative cultures—deep personal enduring cultures central to teachers’ daily work (Robbins & Alvy, 2003, p. 141).

Within collaborative groups, there are three key features that demonstrate promise in supporting teacher learning and changing classroom practice:

1. **Collaboration in the intellectual work of teaching.** Teachers engage over the school year in cycles of ‘. . . planning, enacting, and reflecting upon one’s teaching’ (Palinscar et al., 1998, p. 10) Teachers become accepting of new practices as they try them out in a supported and safe context and observe the results in their own and each others’ classrooms (Guskey, 2002).

2. **A common orientation to teaching and learning.** Teachers work with a body of concepts and principles related to their content area and come to some shared understanding of those concepts and how to apply them (Louis et al., 1996; Palinscar et al., 1998).

3. **Sharing of expertise.** Teachers make available to one another their specialized content knowledge and ‘pedagogical content knowledge,’ instructional approaches for facilitating students’ learning of the content (Palinscar et al., 1998; Thomas, Grossman, Myrhe, & Woolworth, 1998; Little, 2002a; Sherin, 2002) (ctd. in Hindin et al. (2007, p. 352-353).
Meirink et al., (2007) say “sharing of expertise is particularly powerful in terms of changing practice, as teachers can use the expertise of colleagues to adjust or improve their own teaching practice or to adjust, extend substitute, or supplement their own beliefs” (p. 148). Because learning is a social process, the collaborative context of interactive planning and reflecting upon student outcomes is even more important (Lieberman & Mace, 2008). Lieberman and Mace (2008) assert that teachers learn through “practice (learning by doing), through meaning (learning as intentional), through community (learning as participating and being with others), and through identity (learning as changing who we are)” (p. 227).

Key to the collaborative culture is shared purpose. Without teachers uniting behind a common vision for improved student achievement and improved instructional practice, the functionality of teacher collaboration is substantially minimized. One way to facilitate the development of shared purpose rests on the school leader. A school leader may choose to lead faculty members through a book study or a series of article studies that help teachers develop a clear picture of current research and trends in pedagogical practice. By developing a deeper understanding of educational trends and research supporting them, school leaders help to create a sense of urgency, which is critical in initiating the change process and is a first step in developing a common vocabulary centered upon improvement in instruction.

Garet, Porter, Desimone, Birman and Yoon (2001) reported that teachers believed “that their knowledge and skills grew and their practice changed when they received professional development that was coherent, focused on content knowledge, and involved active learning” (ctd. in Darling-Hammond & Richardson, 2009, p. 47). It is the
information that teachers gather through the active learning steps required of collaborative action research that build a sense of efficacy (Darling-Hammond & Richardson, 2009). Further, Darling-Hammond and Richardson (2009) report that “collaborative and collegial learning environments. . .develop communities of practice able to promote school change beyond individual classrooms. . .when whole grade levels, schools, or departments are involved, they create a critical mass for changed instruction at the school level” (p. 48).

Research regarding effective professional development shows that it must be job-embedded, sustained over time, and centered on student achievement (Chappuis, Chappuis, & Stiggins, 2009). However, managing multiple teams of teachers is difficult, even when monitoring the growth of instructional knowledge and skill is rewarding. First, school leaders should remember that all teams need the experience of articulating their own expectations as a means of developing team norms. Once team norms have been established, the norms of all teams should be published or otherwise made public to help all members of the faculty understand the expectations of all of their colleagues’ teams. It is a key job of the school leader to help teachers understand exactly what collaboration should look and feel like, and what criteria will be used to judge the effectiveness and functionality of the teacher teams (Gajda & Koliba, 2008). Another job of the school leader rests in culture and communication. Chappuis et al. say that school leaders must not only lead by setting the tone and climate of the building, they must also model the ongoing learning they are prompting teams of teachers to do through a clearly established, shared vision. Through this, says Chappuis et al. a professional development model “will have a greater probability of success” (p. 59).
Secondary teachers can be especially resistant to engaging in the kind of dialogue and evaluation of practice that leads to systemic school improvement. As Gajda and Koliba (2008) point out, “when it comes to high-quality teacher collaboration at the secondary level, creating space and time for teachers to get together is not nearly enough” (p. 149). Elmore (2005) concurs: “Authority to command or induce you to do something you are not currently doing depends, in large part, on your capacity to actually do it” (ctd. in Gajda & Koliba, 2008, p. 150).

A key to managing multiple teams is time. In addition to carving time out of the daily schedule for teachers to meet on a regular, job-embedded basis, it is also necessary for the school leader to monitor the functions and work of the teams. Chappuis et al. (2009) state that school leaders need to help teachers understand the structure of formally scheduled meeting times, it is also a leadership responsibility to help teachers understand that a truly functional collaborative culture requires they work and learn between team meetings. One way to do this, they say, is to create a cultural shift in the school that focuses upon “teachers as learners” (p. 57).

Another part of the school leader’s responsibility in managing collaboration teams is setting out a clear explanation of the model and clear expectations for use of collaboration time. Chappuis et al. (2009) report that confusion can be a result of a cultural shift to collaboration when, in past professional development models, presenters have been responsible for “action,” (p. 58) while participants have only been responsible for being in attendance. The shift in responsibility for professional learning means teachers have to understand from the beginning that they are designing their own learning and are not only responsible, but also accountable for the activities and actions that will
propel their professional growth. To help teachers understand their new roles in the collaborative professional development model, teachers should understand the components of adult learning, as well as assist in developing and implementing accountability tools to help them monitor their own professional growth.

The group facilitator is a key position on the collaborative team that should not be overlooked. If the facilitator is skilled at moderating discussions, asking appropriate, probing questions, and generating group participation that complies with the norms of the group, the school leader’s job of managing collaborative learning teams becomes much less difficult. Chappuis et al. (2009) say that collaboration facilitators should be carefully chosen and skilled, taking on the role of “‘advanced learner,’ selecting activities matched to the team’s needs and doing the reading and activities in advance of meetings so they can help steer team members through unfamiliar or complex concepts” (p. 58). These facilitators should also be strong managers of organizational details, as they are responsible for providing handouts, collecting accountability artifacts, assisting the group is establishing research and student work examination protocols, as well as providing agendas and pertinent handouts to the group.

To avoid the pitfall of collaboration time turning into a non-instructional meeting time, it is important that school leaders allow teacher teams to construct learning goals and action research cycles designed to meet their specific needs. This has to be done carefully, since developing a consistent mental model for collaboration is important and may require a building-wide content or process focus in the initial year of collaboration to help better establish this consistent mental model; after the model has been established, teams should be afforded the flexibility to examine data and design learning to meet their
needs. So long as the design for instructional improvement is based upon a verifiable student-learning gap and is intended to improve student achievement, consistently monitoring the progress of the team should be effective.

One method of defining a collective set of goals for multiple collaboration groups is engaging an entire faculty in defining what Reeves (2005) calls Power Standards. These standards have endurance, leverage, and are essential for the next level of instruction. As the faculty engages in the process of uncovering their common Power Standards, school leaders have the ability to facilitate the work of multiple groups as they point back to the school’s Power Standards.

*Challenges of Collaboration as a Professional Development Model*

There are inherent challenges of teacher collaboration. The dynamic relationships of teachers with diverse personalities consisting of independent belief systems can create unproductive collaborative models. Scribner et al. (2007) suggests that groupthink (Janus, 1982) and “unduly convergent thinking” (p. 72) are impediments of effective collaboration.

In a time when less than half of the teachers who have achieved National Board certification find professional development activities adequate (Lieberman & Mace, 2008) there is a definite need to develop teachers’ learning systems that fulfill their clearly unmet needs and alleviate the frustration being created by current professional development offerings. This may mean, according to Chappuis et al. (2009), finding a research-based content or process strategy so that it has supported underpinnings,
reducing the likelihood of criticism and failure when teachers attempt to embed their learning into their practice.

Accountability in Collaboration

Reeves (2006) reminds school leaders that, while they are accountable for many issues beyond their control, there are still powerful ways to influence student achievement in schools. He points out that professional development and collaboration are two of these powerful influences, and that school leaders have good reason to take note. In terms of professional development, Reeves (2006) says schools should “[focus] on a few things: what to teach, how to teach it, how to meet the needs of individual students, and how to build internal capacity. With an emphasis on internal capacity, the leadership of professional development efforts comes from the faculty itself, and a large part of professional education takes place in the classroom context of authentic teaching” (p. 86). In this vein, collaboration is both beneficial to teachers as effective, meaningful professional development, and is also meaningful as the influence of a school leader on student achievement.

There is also a challenge of attaining a common understanding of the concept of collaboration. Barth (1990) says that collaboration does not simply imply congeniality, rather it suggests collegiality, as one suggests simply getting along “in the tradition of hot coffee, good bagels, and little professional challenge,” while the other “is about the tough work of examining student needs” (ctd. in Reeves, 2006, p. 87). Collaboration, as a part of the professional learning community concept, is a recently popular school reform model. Collaboration must also be designed by school administrators and teachers who
understand Schmoker’s (2004) paradigm so that teacher collaboration groups are
*communities of practice*. These communities of practice allow educators to develop
shared understandings and engage in cycles of inquiry around common purposes. These
*communities of practice* are the foundational elements of the larger professional learning
community (ctd. in Gadja & Koliba, 2008).

Truly effective collaboration models “intentionally design more opportunities for
participants to actually see and analyze classroom examples” (Hindin et al., 2007, p.
371). Scribner et al. (2007) conclude that teams of teachers as part of a shared
governance structure in schools have important implications. The basic dynamics that
need to be attended to by the principal or school leadership team include:

1. Conceptualizing leadership teams in terms of interactions.
2. Needing to help teachers become aware of conversational dynamics that lead
to or subvert effective collaboration.
3. Needing to help principals become more aware of their role in helping
establish clarity of purpose and appropriate levels of autonomy so that teams
may engage in work that leads to effective and innovative problem-finding
and problem-solving activities (Scribner, 2007, p. 67).

Accountability is a key component in any change model. In teacher
collaboration models, accountability usually comes in the form of notes, feedback
and deliberately designed artifacts. Scribner et al. (2007) state that “designed
artifacts are the products of socially distributed leadership manifested in particular
situations; yet once created, these artifacts become structuring forces” (p. 74).
Scribner et al. (2007) describe the decision-making process associated with distributed leadership as those

. . . not made by a single individual; rather, decisions emerge from collaborative dialogues between many individuals, engaged in mutually dependent activities. These collaborative dialogues are a key component of what Spillane et al. have defined as the social distribution of leadership. To understand what is truly distributed leadership thus requires an empirical focus on interaction—collaboration, dialogue, and communication. (p. 70)

There is little research that shows what teachers actually do in a collaboration environment and under what conditions collaboration is most effective as a means of instructional growth (Meirink et al., 2007). Conceptualizing collaboration as networked leadership, a concept developed in the 1950s and 1960s, the focus is placed upon what people do, rather than focusing upon who is doing it, challenging the formalized, traditional notions associated with positional leadership (Scribner et al., 2007, p. 69). The research that exists points to increased student achievement when teacher teams are aligned in a manner that allows them to autonomously develop goals, curricula, instructional strategies, budgets and staff-development programs (Scribner et al., 2007, p.71). Less fragmentary, however, is the research on collaboration as a means to develop teacher leadership capacity; Katzenmeyer and Moller’s (1996) work “highlighted teachers’ potential ability to influence others toward improved educational practice” (Gigante & Firestone, 2007, p. 303).
Job-embedded professional development is critical to changing and improving instructional practice, but documenting the work accomplished in collaboration can be a daunting task. School leaders are held accountable to show that their faculties are engaged in highly effective professional development, but must design and collect artifacts that evidence this adult learning in such a way that does not overload the professionals whose practice they are seeking to improve. Reeves (2008) says that “too rarely are educators asking the most fundamental question in educational research: is it working?” This, then, should be what drives both the cycle of professional learning, as well as the development of documentation artifacts. It is interesting to note that Reeves (2008c) references an earlier study of his reported in The Learning Leader (2006) that found that in “schools where leadership teams primarily attributed student achievement to student demographic variables, an average of 43.6 percent of students scored proficient or higher on a group of 25 assessments. In contrast, in schools where leadership teams primarily attributed student achievement to faculty variables, an average of 64.8 percent of students scored proficient or higher on those assessments” (p. 7).

The documentation of collaborative professional development is imperative, as it provides evidentiary artifacts of the implementation of professional research and learning. It is only through implementation that any professional development can leverage student achievement; without sustained action research in a collaborative school, the best practices uncovered in educational research will have little or no impact on the learning of students. To document the effects of collaborative professional development, Reeves (2008c) proposes that school leaders design opportunities for “short term wins” where faculty members can see data related to collaboratively implemented strategies every two
to three weeks (p. 23). Through this systematic approach, results are always kept in front of faculty members who have engaged in the risky behavior of changing their practice, while they are also keeping their eyes on the effect the changes in instructional practice are having on students.

**A Collaboration Model**

Even with all of the research and assistance available, it is the duty of school leaders to develop a clearly focused collaboration plan that fits the culture of the school, the demands of the community, and the needs of the students and teachers. DuFour and Eaker (1998) point out that effective collaboration models “do not emerge spontaneously or by invitation” (ctd. in Gajda & Koliba, 2008, p. 134). Pappano (2007) supports the position of Dufour and Eaker, stating, “for secondary schools to produce high levels of student learning, principals need to employ models of supervision, evaluation, and professional development that will purposefully cultivate high-quality collaboration” (ctd. in Gajda & Koliba, 2008, p. 134). Hord (2008) is a proponent of the collaborative learning model because it facilitates the act of intentional learning by faculty members and allows them to explore and identify the focus of their learning. If is the focused study of identified instructional and learning needs that promotes school improvement through cyclical research; Hord (2008) says this “incremental, job-embedded, and ongoing adult learning promotes instructional proficiency” (p. 13).

The Teacher Collaboration Improvement Framework (TCIF), designed by Gajda and Koliba (2008) out of their research and work with the Vermont State Department of Education, identifies six key action steps in effective teacher collaboration models:
(a) Raise collaboration literacy
(b) Identify and inventory communities of practice
(c) Reconfigure teacher teams
(d) Assess quality of collaboration
(e) Make corrections
(f) Recognize accomplishments (p. 135).

To establish effective collaboration groups with the capacity to create changes in student achievement, helping teachers understand and implement action research is important. The act of collaborative action research is a component of the professional learning communities model, and, as identified by Gajda and Koliba (2008), communities of ongoing inquiry where teachers continuously “store, retrieve, examine, transform, apply, and share knowledge and experiences about practice for a shared purpose” is, as Goodlad, Mantle-Bromley, and Goodlad (2004) assert, “the single-most important vehicle for school renewal” (ctd. in Gajda & Koliba, 2008, p. 139).

School leaders must be watchful, however, of weak collaborative structures, defined only by close personal relationships among teachers, because they can reinforce poor, ineffective instructional practices (Fullan, 2005, p. 67). If school leaders do not work to deliberately establish and monitor highly effective instructional collaboration, schools may end up focusing on things that are “powerfully wrong” (Fullan, p. 67). It is the leadership that administrators and teacher leaders bring to the culture of a school that shape the work of collaborative teams and lead them in the direction of positive instructional change.
Collaboration time, according to Chance and Segura (2009), should be (1) scheduled, (2) structured and fostered, and (3) built with accountability for specific actions outlined for both administrators and teachers, while planning is student-centered (p. 7). With time for collaboration scheduled and protected for the sole purpose of common planning and completion of action research, it becomes the responsibility of the principal to provide goals and objectives for the time, then feedback regarding the accountability artifacts that are completed during teacher collaboration. Through this model of shared and distributed responsibility, all faculty and administrative stakeholders have a role in the effective implementation of instructional collaboration. According to Chance and Segura (2009), when collaboration is effective and the model is sustained over time, there are specific changes noted in staff development. Evans (1996) describes the pattern of teacher change as:

1. Unfreezing—Persuading teachers that change is necessary and reducing the fear of trying.
2. Making change meaningful—Moving teachers from a sense of loss to commitment.
3. Moving from old competence to new competence—Teachers developed new beliefs and ways of thinking.
4. Moving from confusion to coherence—Structures, functions, and roles were realized.
5. Moving from conflict to consensus—Eventually there was broad support for change (ctd. in Chance & Segura, 2009, p. 7).
A piece of the deliberately established mental model of teacher collaboration is reflection, which John Dewey (1933, p. 9) defined as “. . .the active, careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends” (ctd. in James, Dunning, Connolly, & Elliot, 2007, p. 542). Without this intentionally formulated collective understanding, collaborative structures of professional development do not have the leverage needed to affect whole-school change.

The practical purpose of reflection, underpinning its importance in the collaborative environment, is to improve practice in the immediate context (James, et al., 2007, p. 543). Because reflection is ordinarily thought of as an individual practice, “the role of others in the process, particularly fellow practitioners, is insufficiently stressed” (James, et al., 2007, p. 543). Others can accentuate the individual practice of reflection through thoughtful questioning, dialogue, and input regarding their own personal, related experiences, thus significantly affecting another’s active reflection of personal practice (James et al., 2007).

Kanold, Toncheff, and Douglas (2008) have composed three commitments that are paramount for building effective collaborative networks:

1. Attacking the entitlement of private practice by creating collaborative teacher work environment.

2. Building the learning capacity of the adults in each high school within the context of the workplace.
3. Creating a result-oriented focus for all teacher teams and school administrative teams to bring coherence to adult actions and provide student interventions (p. 23).

While teachers participate in a results-oriented dialogue to improve student achievement, Langer and Colton (2005) propose that, rather than collaboration, the model be thought of as collaborative inquiry, which promotes the study of individual learner progress over time, has a theoretical framework guiding the inquiry process, follows established group norms, and is supported by school leadership (p. 22). Through the use of what Shulman (1987) calls “case knowledge,” Langer and Colton advocate collaborative inquiry based on the intensive study of an individual student’s learning, helping teachers narrow the focus of their professional learning and can transfer the knowledge they gain in the study of one student to the class of learners as a whole, benefiting all students through the focused study of one (p. 23).

In all models of collaboration, however, it is necessary for teachers to break down the typical walls of isolation by engaging in professional discourse about topics that are private in most schools: teaching and learning. Only through extended conversation and feedback regarding instruction, lesson design, assessment, and student achievement measures does the focus of professional learning truly move from one focused upon teaching to one focused upon what students are learning. DuFour (2005) cites the importance of collegial conversations:

Collaborative conversations call on team members to make public what has traditionally been private—goals, strategies, materials, pacing, questions, concerns, and results. These discussions give every teacher someone to turn to
and talk to, and they are explicitly structured to improve the classroom practice of teachers—individually and collectively (p. 38).

Effects of Collaboration on Teacher Efficacy

As a means of building self-efficacy, collaboration allows individuals to exert control over their professional lives. Bandura (1997) describes the theoretical foundation of self-efficacy as people having the power to “control the events that affect their lives” (p. 1), which collaborative professional development models allow teachers to do in their professional lives. Further, as Bandura explains, “uncertainty in important matters is highly unsettling. To the extent that people help to bring about significant outcomes, they are better able to predict them” (p. 2). The definition of perceived self-efficacy, according to Bandura, and applicable to teachers’ perceptions of their locus of control in collaborative professional development, is: “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3).

Self-efficacy is a mechanism of human agency. Bandura (1995) defines perceived self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (p. 2). He further explains that efficacy “influences how people think, feel, and motivate themselves” (Bandura, 2005, p. 2). Bandura (1995) also describes four main influences on self-efficacy:

1. **Mastery Experiences**—these provide the most authentic evidence of whether one can muster whatever it takes to succeed. Successes build a robust belief in one’s personal efficacy. Developing a sense of efficacy through mastery experiences is not a matter of adopting ready-made habits. Rather, it involves
acquiring the cognitive, behavioral and self-regulatory tools for creating and executing appropriate courses of action to manage ever-changing life circumstances.

2. *Vicarious Experiences*—Seeing people similar to oneself succeed by perseverant effort raises observers’ beliefs that they, too, possess the capabilities to master comparable actions.

3. *Social Persuasion*—People who are persuaded verbally that they possess the capabilities to master given activities are likely to mobilize greater effort and sustain it in that they harbor self-doubts and dwell on personal deficiencies when problems arise.

4. *Physiological and Emotional States*—People interpret their stress reactions and tension as signs of vulnerability to poor performance (pp. 3-5).

Chappuis et al. (2009) summarize the importance of teacher collaboration in schools, in that “collaborative learning teams can transform the nature of adult interaction and learning in schools by engaging teachers in the same process of continual learning and improvement that we ask our students to strive for in their work” (p. 60). Reeves (2008) similarly found that when teachers engage in sustained action research in a collaborative environment, there are three consistent results:

1. Teacher researchers frequently (although not always) have a direct and measurable impact on student achievement, behavior, and educational equity as a result of specific practices during their research.

2. Whether or not the teachers’ hypotheses are supported by their research, teacher researchers affect the professional practices of their colleagues.
3. Participation in action research and the observation of and reflection on research results can lead to what Collins (2001) calls the *flywheel effect*. Effective professional practices are reinforced and repeated not only by the original teacher researchers but also by many other teachers who are influenced by these observations and practices (p. 8).

Aside from the data regarding student achievement that is collected during action research cycles completed during collaborative professional development, a notable effect of collaboration is its impact on teacher efficacy. Reeves (2008c) cites Howard (1995) and Shaughnessy (2004), who have found that “efficacy is an exceptionally powerful psychological variable long associated with improved achievement by students and adults (p. 58). He further states that “efficacy is a sense of personal empowerment that gives us the confidence to take actions, engage in appropriate risks, and transmit our confidence to others, thus making our eventual success a self-fulfilling prophecy” (p. 58).

Collaboration moves teachers out of isolation and helps them grow in their practice. This growth, which can be defined through student learning data, occurs because “teachers do not learn best from outside experts or by attending conferences or implementing ‘programs’ installed by outsiders. Teachers learn best from other teachers, in settings where they literally teach each other the art of teaching” (Schmoker, 2005b, p. 141). Productive collaboration, Schmoker (2005b) says, is characterized by what earlier studies found to be “frequent, continuous, and increasingly concrete and precise talk about teaching practice . . . adequate to the complexities of teaching and capable of distinguishing one practice and its virtue from another (pp. 141-142).
Tradition of Inquiry

Qualitative Method

For this study a qualitative method of inquiry has been chosen. Qualitative research is appropriate, as it is “a research paradigm which emphasizes inductive, interpretive, methods applied to the everyday world)” (Hatch, 2002, p. 6). Hatch (2002) further reports that books by Jackson (1968), Wolcott (1973), Henry (1965), and the Spinlders (1955) “pointed to the efficacy of applying qualitative methods to understand the special social contexts of schools and schooling” (p. 4). Bogdan and Taylor (1975) provide a succinct definition of qualitative research:

research procedures which produce descriptive data: people’s own written or spoken words and observable behavior. [It] directs itself at settings and the individuals within those settings holistically; that is, the subject of the study, be it an organization or an individual, is not reduced to an isolated variable or to a hypothesis, but is viewed instead as part of a whole (ctd. in Hatch, 2002, p. 6).

The research paradigm that is the basis of qualitative research goes back to the German intellectual tradition of “interpretive sociology,” with positivist sociologist Weber seeking verstehen, or understanding, in their work (Hatch, 2002, p. 8). Hatch (2002) says, “Qualitative research seeks to understand the world from the perspectives of those living in it” (p.7). Qualitative research is a “legitimate mode of social and human science exploration,” and is thus appropriate for this study of professional development in an educational setting.
(Creswell, 2007, p. 11). Creswell (2007) further defines qualitative research as beginning with “assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem” (p. 37). Because qualitative researchers seek to understand the perspectives of participants in a context, qualitative research is a legitimate choice for a school setting. Through the insights and information gained from teachers engaged in collaborative professional development, I will seek to understand the value of collaborative professional development and trace the development of teacher efficacy. This data will be examined to discover the central phenomenon.

Qualitative research begins with the belief that each social setting is unique unto itself and its inhabitants. This research paradigm operates with the assumption that “objects, pictures, or detailed descriptions cannot be reduced to numbers without distorting the essence of the social meanings they represent,” thus, this model is well suited for the unique contexts the public school researcher encounters (Hatch, 2002, p. 9). Hatch (2002) considers it a hallmark of high-quality qualitative research that researchers work from extended periods of engagement within the research context and with the research participants. This extended engagement allows the researcher to gain intimate knowledge of the participants and their interactions with each other and their contexts, making the assembly of knowledge from the data collection process more succinct, with the researcher possessing a deeper understanding of the participants and context about which they write. Hatch (2002) states, “I understand the practicalities of doing
research, especially doctoral dissertation research, but overall, qualitative researchers are not spending enough time being intensely engaged in the settings they are studying” (p. 8).
Figure 1.

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<td>Analysis of data inductively, recursively, interactively</td>
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<td>Focus on participants’ perspectives, their meanings, their subjective views</td>
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<td>Framing of human behavior and belief within a socio-political/historical context or through a cultural lens</td>
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<td>Emergent rather than tightly prefigured design</td>
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<td>Holistic view of social phenomena</td>
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Creswell, 2007, p. 38
Constructivist Paradigm

It is necessary for the qualitative researcher to consider his or her own paradigms and worldviews as these will act as information filters that inform the researcher’s interpretations of data in the writing of qualitative research (Creswell, 2007). Research adherents of the constructivist paradigm “address the ‘processes’ of interaction among individuals. . .[focusing] on the specific contexts in which people live and work in order to understand the historical and cultural settings of the participants” (Creswell, 2007, p. 21). Hatch (2002) contends that qualitative researchers must rely on subjective judgment to assemble learning from qualitative research settings, with subjective judgment being “more required as researchers move from description toward interpretation” (p. 9). Social constructivist research, as this case study is, relies heavily upon participants’ views of a situation, leading the researcher to look for broad complexities in formulating meanings, rather than seeking to narrow findings into a few categories (Creswell, 2007). As such, Hatch (2002) argues that qualitative researchers must “concentrate on reflexively applying their own subjectivities in ways that make it possible to understand the tacit motives and assumptions of their participants” (p. 9) (Hamilton, 1994; Jacob, 1987; Lincoln & Guba, 1985). Creswell (2007) concurs, saying that qualitative researchers acknowledge that their personal backgrounds and experiences shape their interpretations of the data being studied.

Constructivists believe that multiple realities exist within the same context, as each individual has his or her own unique perspectives through which
occurrences are filtered. Guba and Lincoln (1994) believe that “realities are apprehendable in the form of abstract mental constructions that are experientially based, local, and specific” (Hatch, 2002, p. 15). Further, for the constructivist researcher, Hatch (1985, p. 161) says that “knowledge is symbolically constructed and not objective; that understandings of the world are based on conventions; that truth is, in fact, what we agree it is” (Hatch, 2002, p. 15). Because of this epistemological stance in qualitative constructivist research, it is neither practical nor desirable for the researcher to be distant and objective from the participants and phenomenon being studied (Hatch, 2002, p. 15). Further, Teddlie (2005) reports “values play a large role in conducting research and in drawing conclusions from studies, and they see no reason to be concerned about influence” (p. 215).

The accepted methodological structure for constructivist qualitative research requires the researcher to “spend extended periods of time interviewing participants and observing them in their natural settings in an effort to reconstruct the constructions participants use to make sense of their worlds” (Hatch, 2002, p. 15).

Case Study

I have chosen case study methodology. Creswell (2007) notes that a case study is an approach in which the researcher explores a bounded system over time, gathering detailed, in-depth data from multiple information sources. Case study is an honored method that has multiple research applications across social
science disciplines (Creswell, 2007; Hatch, 2002). Hatch (2002) reports that case studies and rich narratives account for the acceptable work products generated from constructivists work in qualitative research. Case study research has been most notably applied to psychology, medicine, law, and political science, and Merriam (1998) advocates “a general approach to qualitative case studies in the field of education” (Creswell, 2007, p. 73). Hatch (2002) cites the work of Yin (1994) and Merriam (1988) in forwarding the position that case studies are “a special kind of work that investigates a contextualized contemporary (as opposed to historical) phenomenon within specified boundaries” (p. 30). As such, the study being conducted falls within the parameters established by these researchers as being qualitative case study research.

This study will consist of a case study focused on one large, suburban Midwestern high school and will generate research data from participant interviews. Hatch (2002) reports that “qualitative interviewers create a special kind of speech event during which they ask open-ended questions, encourage informants to explain their unique perspectives on the issues at hand, and listen intently for special language and other clues that reveal meaning structures informants use to understand their worlds” (p. 23) (Mishler, 1986; Seidman, 1998; Spradley, 1979).
Chapter 3

Methods

Researcher Reflexivity

Qualitative researchers “influence the enactment of [the qualitative] phenomenon” being studied, and “the knower and the known are taken to be inseparable” (Hatch, 2002, p. 10). It is necessary for the qualitative researcher to know and understand his or her entanglement in the social context being studied because it is impossible to disentangle oneself from the context of qualitative research. Hammersley and Atkinson (1983) say, “This is not a matter of methodological commitment, it is an existential fact. There is no way to escape the social world in order to study it; nor, fortunately, is that necessary” (Hatch, 2002, p. 10). The nature of reflexivity involves the researcher keeping track of the influence he or she is exerting in a context, bracketing biases, and monitoring one’s own emotional responses in such a way that elicits understanding of the phenomenon being studies (Hatch, 2002). Further, Goodall (2002, p. 137) says, reflexivity is “the process of personally and academically reflecting on lived experiences in ways that reveal deep connections between the writer and his or her subject” (Hatch, 2002, p. 11).

I enter this study with thirteen years of professional experience within education, focused upon teaching, administration, and advocating for high-quality professional development for teachers. My professional experiences include teaching high school English and journalism for six years, serving as a vice-principal in a large, suburban high school for three years where my
responsibilities included building assessment coordination and professional
development, and currently, entering my fourth year as the principal of a large,
suburban high school. Professional development for both teachers and
administrators has been an intense interest, as I have achieved lifetime
certifications in English and journalism education and secondary school
administration, and have obtained a Specialist degree in school superintendency.

I have facilitated the development of a collaborative professional
development model in a large high school with more than 100 faculty members
where no instructional collaboration had previously existed. My continuing work
in collaborative professional development leads me to seek to understand the key
components of a highly-effective model that affords teachers the opportunities to
research, implement, reflect upon and adjust their instructional methods in an
effort to design effective instruction that positively impacts student learning.
These efforts allow me to advocate for instructional professional development in a
more informed and effective manner.

Sampling Method

The sample will consist of 20 participants. All are high school teachers
within a large, suburban high school and are participants in a collaborative model
of professional development. This stratified purposeful sample will help “inform
an understanding of the research problem and central phenomenon in the study”
(Creswell, 2007, p. 125). As a stratified purposeful sample, this group of
participants “illustrates subgroups and facilitates comparisons” (Creswell, 2007,
Hatch (2002) finds that participants are co-constructors of the knowledge sought by the researcher in qualitative research; therefore, researchers are likely to enlist those with whom they have more collaborative relationships in order to have access to the level of participant knowledge and perspective being sought to further understanding of the phenomenon being examined.

Hatch (2002) supports Patton (1990, pp. 169-86) in his outline of sampling procedures when interview data is the only or the primary source of data collected in a study. In this study, Patton’s (1990) stratified purposeful sample model has been selected. In this, “individuals are selected to represent particular subgroups of interest” (Hatch, 2002, p. 98). Interview participants in this study were selected to represent varying years of experience in education, varying educational subject backgrounds, and varying levels of success found in participation in the collaborative model of professional development.

Each of the participants worked in the same large, suburban high school. I contacted teachers using a letter of invitation (Appendix A), whereupon appointments were made with those who agree to participate in the study; informed consent was obtained (Appendix B). If the first 20 teachers who received letters of invitation did not agree to participate, I was prepared to expand the participant pool to include other teachers who met the conditions for the subgroup vacated by those original cases.

To remain aligned with established best practices of case study methodology, interviews were conducted in adherence with Creswell’s (2007) series of recommended steps:
1. Identify interviewees based on purposeful sampling procedures.

2. Determine the type of interview that is most appropriate to net the most useful information.

3. Use adequate recording procedures.

4. Design and use an interview protocol, a form about four or five pages in length, with 24 open-ended questions and ample space between questions to write responses to the interviewee’s comments.

5. Refine the interview questions and the procedures further through pilot testing.

6. Determine the place for conducting interviews.

7. Obtain consent from the participants at the interview site.

8. During the interview, stay to the questions, complete the interview within the time specified, be respectful and courteous, and offer few questions and advice.

The interview method used in this study was structured, in-depth interviewing. Hatch (2002) describes these interviews as “structured in the sense that the research is ‘in charge’ of leading the interview, there is a set time established for the interview, and they are most often recorded on tape. They are semi-structured because, although researchers come to the interview with guiding questions, they are open to following the leads of informants and probing into areas that arise during interview interactions” (p. 94).
Ethical Considerations

Qualitative research requires a close relationship between the researcher and participants. Hatch (2002) finds that qualitative studies require “some level of active involvement by research participants” and that many qualitative studies only work “when that involvement is extensive, and some studies require involvement at the level of collaboration” between the researcher and participants (p. 65). Participants must be able to trust the researcher at the level of being able to share personal details and perspectives.

Hatch (2002) finds that reciprocity is an ethical issue in most qualitative research. Reciprocity hinges upon the researcher investing in the participants as much as the participants invest time and energy in the phenomenon being studied and in the research being conducted. To demonstrate reciprocity, Hatch (2002) says that researchers may be involved in reciprocal co-teaching, may provide transportation to participants as they attend meetings, and may make other labor-related contributions to participants that have the potential to cause ethical dilemmas. However, he notes that it is important that the participants receive something of substance from the researcher as a result of participating in the research study.

For studies conducted in educational settings, Hatch (2002) points out special ethical considerations. When teachers are asked to participate in research, it is critical that the researcher makes full disclosure of the research intentions and that teachers understand that participation in the study is completely voluntary (p. 67). For the purposes of this study, as it involves teachers as participants and their principal as researcher, it was important that participants were not coerced into participation. This dilemma was addressed through full disclosure of the research focus, the intent of the
research, and the voluntary nature of participation. Further, to address any perceived power-over perception, interviews were not conducted at the high school where the researcher and participants worked; rather, interviews were conducted at a neutral site outside of the daily educational context of the researcher and participants. Hatch (2002) believes that researchers should be particularly mindful of the vulnerability of teachers who participate in qualitative research. As such, for the purposes of this study, the researcher made participants understand their ability to withdraw from the study both in writing and orally. Because this study addresses interactions with participants’ peers rather than participants’ interactions with the researcher, potential ethical dilemmas were reduced. The study focuses on collaborative professional development, not on the researcher-participant relationship.

Primary ethical considerations in qualitative research applicable to this study, according to Lipson (1994), include informed consent procedures and confidentiality toward participants, sponsors, and colleagues (Creswell, 2007, p. 141). Individual participants were assigned an alias as a means of protecting anonymity, and the information provided by individuals were utilized to represent a “composite picture rather than an individual picture” (Creswell, 2007, p. 141). Informed consent was obtained from participants and permission was obtained from the university Institutional Review Board (IRB) for this study. There were no known risks associated with participation in this study. This study received permission on February 19, 2010 by the Institutional Review Board (IRB) for the protection of Human Subjects at the University of Nebraska-Lincoln (Appendix D).
Though level of researcher involvement with study participants has the potential to create ethical dilemmas in this study, Hatch (2002) notes that the constructivist paradigm leads logically in the direction of more participation when observation is chosen as a data collection strategy. If participants are to be involved in co-constructing the findings of the study, then constructivist researchers doing naturalistic inquiry, case studies, participant observation, educational criticism, phenomenological studies, or action research are likely to be at least moderately involved as participants (p. 76).

Verification

Participant interviews were digitally recorded. Transcriptions of the taped interviews were required. The tapes were professionally transcribed and were sent to the participants for review. At that time, the participants could clarify their respective responses or give the researcher more information in keeping with the procedure of member checking to validate the credibility of the findings and interpretations of the researcher (Texas Historical Commission, 2009). (Appendix C-Confidentiality Form: Transcriptionist).

Second, during the course of this study, I needed to be mindful of my personal biases and reactions regarding what I observed. I sought to suspend judgment and did not deviate from the established interview protocol, so as not to influence the responses of the participants. Ely (1991) recommends bracketing during the recording of notes and observations, as the researcher “becomes aware of our own assumptions, feelings, and
preconceptions, and then, that we strive to put them aside—to bracket them—in order to be open and receptive to what we are attempting to understand (Hatch, 2002, p. 86). Hatch (2002) also notes that the reactions of the researcher should be recorded in raw notes and protocols, and should be kept clearly separate from the data records. Further, I maintained a field journal as a means of clarifying personal biases. Field journals “help with field note interpretation and provide a means of accounting for personal biases and feelings” (Hatch, 2002, p. 87).

Data Collection Procedures

Data Storage

The data consisted of transcribed interviews. Creswell (2007) recommends developing a backup copy of all computer files, using high quality recording devices, developing a master list of the types of information gathered, protecting the anonymity of participants by masking their names in data, and developing a data collection matrix as a means of locating and identifying the information collected for a study (pp. 142-143). Creswell (2002) further advocates for a well-developed filing system that allows for organized retrieval of the data collected during the course of research.

Potential Field Issues

As an inexperienced researcher, Creswell (2007) notes that there are potential field issues had to be prepared to encounter, including finding myself overwhelmed by the amount of time necessary to record and collect qualitative data. Further, I was prepared to encounter limitations in my personal ability to acknowledge all aspects of the research topic, as I have a vested interest in the topic being studied. Other potential field
issues include: “remembering to take field notes, recording quotes accurately, keeping from being overwhelmed at the site with information, and learning how to funnel the observations from the broad picture to a narrower one in time” (Creswell, 2007, p. 139).

Data Analysis
Data analysis is a crucial part of the research study. Data analysis “means organizing and interrogating data in ways that allow researchers to see patterns, identify themes, discover relationships, develop explanations, make interpretations, mount critiques, or generate theories” (Hatch, 2002, p. 148). With a qualitative study such as this one, I had to intimately understand the interview data that I had collected in order to arrive at the patterns and themes that are at the heart of the issue being studied. Researchers must inductively analyze the data to show the relationships between the various themes, or categories, of information (Creswell, 2007, p. 154). Data analysis will adhere to best practices in qualitative case study methodology (Creswell, 2007, pp. 156-157):

1. Create and organize files for data.
2. Read through text, make margin notes, form initial codes.
3. Describe case and contextual background.
4. Use categorical aggregation to establish themes or patterns.
5. Use direct interpretation.
6. Develop naturalistic generalizations.
7. Present in-depth picture of the case using narrative, tables, and figures.
Inductive Data Analysis

Hatch (2002) posits that qualitative researchers collect specific details during the course of research, and then analyze the collected information to discover patterns and relationships through the employment of inductive data analysis. Bogdan and Biklen (1992) state, “You are not putting together a puzzle, whose picture you already know. You are constructing a picture that takes shape as you collect and examine the parts” (Hatch, 2002, p. 10). Because qualitative data analysis possesses a “deductive dimension,” Hatch (2002) reports that researchers form hypothetical categories, then analyze their data to understand if the categories are supported by the data (p. 10). However, the overall pattern of qualitative data analysis is inductive, using specific information gathered from participants to form generalized understandings of the social context of the participant (Hatch, 2002; Lincoln & Guba, 1985). Inductive data analysis, as it applies to this qualitative study, allows the researcher to “argue inductively,” beginning with “particular pieces of evidence, then [pulling] them together into a meaningful whole” (Hatch, 2002, p. 161).

Figure 2.
Steps in Inductive Analysis

1. Read the data and identify the frames of analysis.
2. Create domains based on semantic relationships discovered within frames of analysis.
3. Identify salient domains, assign them a code, and put others aside.
4. Reread data, refining salient domains and keeping a record of where relationships are found in the data.
5. Decide if your domains are supported by the data and search data for examples that do not fit or run counter to the relationships in your domain.
6. Complete an analysis within domains.
7. Search for themes across domains.
8. Create a master outline expressing relationships within and among domains.
9. Select data excerpts to support the elements of your outline.

Hatch, 2002, p. 162
**Data Reporting**

Qualitative data can be reported in numerous ways. Wolcott (1994) argues that description, analysis, and interpretation are all present to some degree in the data reporting of all qualitative studies (Hatch, 2002). Each type of reporting has unique attributes:

**Description:** The data are said to speak for themselves. The goal is to provide accounts that represent as far as possible what is going on in particular contexts. Pure description is impossible because researchers are observing through their own interpretive lenses and making choices about what to describe, but, on balance, description emphasizes data presentation as the source for understanding.

**Analysis:** Transforming data by way of searching for relationships and key factors that can be supported by evidence in the data. The products of analysis are generalizations that represent essential features or relationships, and the case for accuracy of these generalizations is made using excerpts from data.

**Interpretation:** This analysis involves mental processes through which the researcher goes beyond “factual data and cautious analysis and begins to probe what is to be made of them (Wolcott, 1994, p. 36).

Understanding and explanation are the goals of interpretation, and it is here that the researcher inserts his or her own thinking into the data transformation process. Interpretive work is not undertaken without
regard for the data; indeed, the plausibility of interpretations comes from
the researcher’s ability to use the data to make the case for his or her

Stake (1995) suggests the following method for reporting data in case study

1. Open with a vignette.
2. Identify the issue, the purpose, and the method of the study.
3. Provide an extensive description of the case and its context.
4. Present a few key issues.
5. Present confirming and disconfirming evidence of key issues.
6. Present assertions.
7. Close with vignette.

Limitations

One limitation of this research, as a qualitative case study, was that it is difficult
to generalize the findings to a larger population; the goal, then, of my research was not to
generalize, but to describe in detail the case and context in this study, providing evidence
of their work and their words through the use of thick, rich descriptive narrative. As a
novice researcher, I had to be mindful of continually probing participants to gain
additional information that is germane to the study.

A second limitation in this study was the fact that I was speaking with teachers
who have engaged in action research of their own instructional techniques and their own
students. This situation makes it likely that there will be bias in the reporting that I
receive, as teachers want their students to be successful and they, likewise, want their
instruction to be meaningful to students and have a positive impact on learning.
However, since the case in my study is a single school, and participants in the study are
teachers in this school, the variables, such as environment, socioeconomics, curriculum,
and parents, are the same.
Chapter 4

Study Setting

The Professional Learning Communities Model

The implementation of a professional development model in a secondary school is a complicated process. While there exists numerous models to replicate, schools must modify these models to fit their own contexts and communities. The Professional Learning Communities (PLC) model provides a model for professional development and teacher collaboration that many schools, both elementary and secondary, contemporarily seek to emulate. Hord (2004) defines the PLC as “schools flourishing through democratic leadership and ongoing professional development” (p.1). Hord (2004) further explains that the concept of professional learning communities can be understood through the study of the singular definitions of the words that make up the phrase: professional being the independent training, experience, and knowledge each teacher contributes; learning being the implication of ongoing inquiry toward student learning outcomes; and communities signaling collectively shared work toward common goals. The high school in this study adapted many of the tenants of the PLC model in formulating its professional development structure, including the design of teacher collaboration.

Eaker, DuFour, and DuFour (2002) state the themes of a PLC as: “(1) a solid foundation consisting of collaboratively developed and widely shared mission, vision, values, and goals, (2) collaborative teams that work
interdependently to achieve common goals, and (3) a focus on results as evidenced by a commitment to continuous improvement” (p. 3).

They further report that a school cannot adequately deal with student learning needs until the adults in the school have “grappled with the questions that provide direction for both the school as an organization and the individuals within it” (p. 3). Because the structure of the PLC is dependent upon a functioning collaborative culture, this hallmark of the PLC model is often replicated. Eaker, DuFour, and DuFour (2002) say, “members of a PLC are not ‘invited’ to work with colleagues: they are called upon to be contributing members of a collective effort to improve the school’s capacity to help all students learn at high levels” (2002, p. 5). This work focuses not on a program or prescription for school improvement; rather it is a structure that supports ongoing, collective goal-setting, implementation, and reflective practice related to school improvement.

When implementing a change in the school context, leaders must understand the change process. Louis, Toole, and Hargreaves (1999) say “first-order changes are considerably easier and more common, transformative models (second-order changes) are often downsized and implemented as first-order changes” (p. 261-262). To avoid the fragmented, partial implementation of a school reform model such as PLCs, leaders have to understand that, “in many respects, many change efforts have fallen short because organizational leaders have failed to acknowledge the complex nature of organizational life” (Preskill & Torres, 1999, p. 12). The implementation of a PLC model that fits the school context is difficult, as this type of reform model brings with it the complexities of
change. Adults who are most affected by the change process question the value, integrity, and sustainability of the change, which can cause frustration and resistance (Louis, Toole, & Hargreaves, 1999). Schmoker (2004) contends that when teachers are integral members of active collaborative teams who do not simply feel as though they are working through the motions of someone else’s plan, they tend to work hard to and in concert to overcome the anxieties that occur during the change process.

Implementation of a professional learning community model means transforming the operational structure of a school, beginning with its mission, vision, values, and beliefs. Schmoker (2006) states that PLCs are the “surest, fastest path to instructional improvement” (p. 105). Eaker, DuFour, and DuFour (2002) further explain that this substantial school reform can stand up to the turmoil of the change process if schools are deliberate in building a strong mission and vision that are shared by all members of the school community.

The model for the PLC, according to Eaker, DuFour, and DuFour (2002), is “always characterized by a collaborative culture [where] teacher isolation is replaced with collaborative processes that are deeply embedded into the daily like of the school” (emphasis in original, p. 5). They further explain that teachers function as members of teams, giving up “a degree of personal autonomy in exchange for collective authority to answer the most critical questions of teaching and learning” (p. 5).

Scribner, Hager, and Warne (2002) describe this transfer of autonomy:
Communities should be thought of as entities composed of individuals who come together to share certain values and beliefs but maintain an individuated identity, thus maintaining both ‘I-ness’ (professional autonomy and individual development) and ‘we-ness’ (shared identity). I-ness and we-ness occurring together suggests a level of shared identity through which teachers are better positioned not only to respond to problems of practice using their individual insights and experiences but also to do so in ways that both share knowledge and skills with their peers and are good for the organization as a whole through shared vision (pp. 69-70).

The conceptual framework of the professional learning community is based upon 7 tenants:

1. Collaboration
2. Developing mission, vision, values, and goals
3. Focusing on learning
4. Leadership
5. Focused school improvement plans
6. Celebration

When each of these has been accomplished, the framework is established for a school to function as a PLC. However, fragmented implementation of these tenants is not guarantee of a PLC school, nor is effective, meaningful school reform.
Increased school effectiveness in the form of improved student achievement has been documented in many schools utilizing the PLC model as a vehicle for school operations (Schmoker, 2006). Professional learning communities have been linked with increased student achievement, improved school culture, increased rigor for students, and increases in instructional effectiveness and the decrease subgroup achievement disparities (Scribner, Hager, & Warne, 2002).

While school improvement has been documented in many research studies, few researchers have included the perspective of the teacher in their findings. With evaluation of the PLC in terms of whole-school or district reform, measured by student achievement results, there has been little understanding of the individual experiences of teachers who have worked through the complicated implementation process of the PLC model.

In the development of a PLC, collaboration and development of a common mission, vision, values, and beliefs is a key first step, according to Eaker, DuFour, and DuFour (2002). Fullan (2001) further explains that this step is important in the change process as it “has a tendency to become stronger . . . thus, in evolutionary terms, moral purpose has a predestined tendency to surface” (p. 27). As the mission, vision, values, and beliefs continually surface in the collaborative work of teachers, the work of teaching and learning remains the foremost focus of a school. Fullan also forwards the work of Bolman and Deal (2000, p. 85), who say, “Culture and core values will be increasingly recognized as the vital social glue that infuses an organization with passion and purpose” (p. 28).
A shift in thinking that results from PLCs is the distinction between teaching and learning. Eaker, DuFour, and DuFour (2002) say, “One of the most important cultural shifts that must take place if schools are to perform as professional learning communities involves a shift from a primary focus on teaching to placing the primary focus on learning” (p. 18). This focus on learning is framed by five questions:

1. What exactly do we expect students to learn?
2. How will we know what students are learning?
3. How can we assist and support student in their learning?
4. Based on a collaborative analysis of the results of our efforts, what can we do to improve student learning?
5. How can we recognize and celebrate improvements in student learning?


Hord (2004) further establishes that her extensive research regarding PLCs uncovered five major themes, “supportive and shared leadership, shared values and vision, collective learning and application of that learning, supportive conditions, and shared personal practice” (p. 1).

Eaker, DuFour, and DuFour (2002) contend that the PLC structure is effective because it not only attends to the collective needs of the school; it also focuses on the individual psychological needs of teachers, which are responsible for building self-efficacy. They say that PLCs fulfill teachers’ needs to “feel personal accomplishment” in that they are constantly working with other teachers to measure their students’ learning growth (p. 53). Teachers also have their innate “need to belong” fulfilled through the connectedness that is established through collegial collaboration. Finally, they say that in
intrinsic “need to feel that our life has meaning” is fulfilled through the deep sense of moral purpose that comes through the focused work of a school on its common mission, vision, values, and goals (p. 53). These affective needs are underscored as an important consideration in the PLC structure.

As collaborative teams begin functioning to effect positive movement toward collective goals, accountability becomes important in the PLC structure. Rebecca DuFour described the accountability strategies she utilized as an elementary principal:

One of the strategies we use to help teams maintain their focus on student learning is asking each team to develop and present certain products, which should be a natural outgrowth of their work as a team. The products include common assessments, parent tools and tips for at-home student practice, curriculum guides, pacing guides, and analysis of student performance on assignments and assessments. One of the most significant products each team generates is a student achievement goal and an action plan for achieving that goal. This emphasis on asking teams to ‘produce’ helps teams maintain a sense of shared purpose and priorities. Our teams never have to ask the question, “What are we supposed to do?” (Eaker, DuFour, & DuFour, 2002, p. 88).

Another hallmark of the PLC is a focus on student learning outcomes. This is described by Stiggins (2005) as assessment for learning. Using Stiggins’ approach, teachers set clear learning targets and analyze formative measures of student learning in order to design upcoming instruction to fulfill the learning needs of the students, having already accounted for students’ prior knowledge and misconceptions regarding the learning objective. In collaboration, teachers focus
on developing these learning targets and common assessments based upon their work with a shared curriculum, all of which supports common goals and shared responsibility for student learning. Stiggins (2005) says of assessment, “Rather than relying on assessment as the source of information used to decide who is rewarded and punished, we use assessment as a road map from start to ultimate success” (p. 77).

The perspectives of teachers who participate in professional collaboration are important to thoroughly understand, as the work of classroom teachers directly impacts student learning in schools, and facilitates the collaborative culture of the PLC model. While numerous publications exist explaining the procedures for designing collaborative professional development structures and PLCs, there is little literature that explores collaboration from the perspective of the teacher. As a researcher, I have worked to give teachers a voice regarding their experiences and opinions regarding collaboration. Teacher participants responded to prompts from the researcher in a neutral setting to help the researcher ascertain the way they work within the collaborative structure of their school’s professional development model. Thus, with this PLC collaborative professional learning structure in mind, the results of faculty interviews conducted during this research were analyzed for themes.

*The Leadership of Collaboration*

Schools where collaboration is successful have a strong leadership presence. Faculty members must view the leader as an instructional leader who is committed and focused on the growth of professional learning. Additionally, collaboration models
require an investment of time and a commitment of sustained support by the school leader. Sparks (2005b) says that “leaders matter in the creation and long-term maintenance of professional learning communities” (p. 156). Leadership may exist in many forms, from positional to relational. However, leadership is a means of shaping schools and school cultures and can have profound impact on the change process in schools (Sparks, 2005). Sparks (2005b) contends that leaders must have “next action thinking” which has the capacity to move intentions and knowledge into action that gathers momentum over time (p. 157).

School leaders must provide timely, descriptive feedback to collaboration groups in order to spur continued growth and they must closely monitor the work of the collaborative groups in their building. For collaboration to gain momentum, principals must establish a sense of urgency for teachers to work together to address the challenges of students, and they must elicit from teachers the belief that students will learn more as a result of what is being done in the classrooms.

**Collaborative Structure in Participants’ School**

In the high school where this study’s participants work, the PLC structure has been in place since 2006. The school has implemented a structure aligned with the principles of PLCs, with some adaptations for the community context.

By defining collaboration as the systematic process that allows teachers to work together to analyze and improve instructional performance and student learning, leaders can help teachers work together to establish common learning goals, design focused action research, and work to ensure that the needs of all students are met. These
processes will require sustained professional interactions on the part of teachers. But, as both Darling-Hammond and Schmoker point out, continuous group learning focused on defined student learning goals is the ideal way to focus effective professional development within a school.

Teacher collaboration occurs at least twice per month, during school time, in the participants’ school. This disallows the argument that it requires too much time beyond the school day. Job-embedded professional development such as this is leveraged by the fact that teachers have an innate desire to learn—it is just overextended by the commitments of being a teacher. Helping teachers carve out job-embedded time to focus on improving their work in their craft in this way is essential to the implementation and continued facilitation of a PLC school.

Schools with professional collaboration demonstrate that their goals focus on both adult and student learning. It is a leadership responsibility in the participants’ school to ensure that collaborative work supports the school improvement plan and that adult learning needs uncovered through collaboration are supported through professional development opportunities. Lezotte (2005) says that creating effective schools requires three different lenses. He explained:

- First, we said that if schools were going to change, then the people who work in them would have to change their behaviors to some degree. Therefore, the research that informs this framework would be found by examining characteristics of effective training or staff development programs.
• Second, we said that if school were going to change, then each organization and its operating systems would need to change. This led us to the research on effective organizational and systemic change.

• Finally, we believed that school change, as we conceived it, represented planned or intentional change. With this perspective in mind, we set out to determine what process characteristics were associated with effective planned organizational and system change (p. 180-181).

The pooled intelligence of teachers assists all teachers in furthering their instructional expertise. Unfortunately, it can be difficult to shift the perspectives from some away from the protection of personal work they view as intellectual property, which was evidenced in this school’s PLC model. To overcome this response, teachers were provided with protocols that allowed them to share thoughts and work in non-threatening ways.

Norming

Teachers at this high school went through the practice of establishing group norms for behavior and use of collaboration time so all members of the group understood group expectations. Just as in a classroom, behavioral expectations laid the groundwork for the interactions that followed.
Goal Setting

At the participants’ high school, templates for the Departmental Improvement Plan guided the work that was done during collaboration times. Collaboration in this school is arranged departmentally, though other configurations may be used, depending upon the structure of the school.

Departmental Improvement Plans help collaboration teams articulate a single shared instructional goal that all members of the group work toward accomplishing. These goals are based on the work of Reeves (2005), who assigned three specific criteria for the selection of “power standards” to guide school improvement. Reeves (2005) said, “in order to be identified as a power standard, an academic expectation must meet three criteria: (1) endurance, (2) leverage, and (3) essential for the next level of instruction” (p. 50). Endurance is the principle that the learning goal is meaningful beyond the necessity of knowing for a specific assessment; these goals have the longevity to impact learning in the long-term. Leverage, according to Reeves (2005), is the likelihood that a standard will be associated with other goals or standards. Essential for the next level of instruction signifies what “students must know and be able to do in order to advance to the next class with success and confidence” (p. 51). As part of this planning process, teachers establish a focused research question, articulate their expected results, and establish a timeline for implementation and evaluation of progress.

Planning also involved identifying the method teachers used in measuring progress and specified what work products all members of the group brought to the collaboration table to share with other members of the team.
Modeling Work Products

It is a leadership expectation in this high school that each time the collaboration team meets, notes are taken, questions noted, and progress recorded. These collaboration minutes are given to the school principal, who then oversees progress and provides resources for continued growth. The school principal also utilizes descriptive feedback and records thoughts and questions on the minutes for the collaboration team to consider during its next meetings. This ongoing system of feedback also serves the purpose of monitoring accountability.

This system of ongoing feedback also allows the principal to ensure that collaboration time is being utilized to focus on instructional development and does not become consumed with items of departmental business, like deciding on finals schedules or discussing the supervision of student teachers.

Evidence and Internal Accountability

Expectations for student achievement in this school help teachers articulate what student achievement outcomes look like and instructional practices need to be examined to affect student learning. Evidence provides a means for internal accountability and is underscored by common goals for student learning and individual commitment to those goals. These can then be converted into external measures of accountability, including work products, individual reflective practices, and evaluation of goal accomplishment.

In this high school, the examination of student work from the classrooms of every member of the team also guarantees implementation of the professional learning that occurs during collaboration. The teacher whose student generated the work is allowed to
reflect upon the questions raised by colleagues and benefits from reinforcement and critical feedback that will strengthen future practices. Teachers who are looking at the work of their colleagues understand the caliber of work being done by others and gain respect for the skills of others.

Collaborative interactions such as these serve the purpose of building teacher self-efficacy, which has been shown to improve student achievement. They also serve the purpose of building “local expertise” in instructional practices, in turn building leadership capacity within teachers.

Another means of building leadership capacity in faculty members evident in this school is the structure of collaborative groups, which are led by a group facilitator. These individuals are not teachers who already possess leadership responsibilities, i.e., department chairpersons. Facilitators gain leadership responsibility through interacting with the school principal in providing feedback regarding the work done during collaboration and they are able to act as a sounding board between other members of the collaboration team and school leadership. They have also gained credibility with their peers by ensuring that the group adheres to the established norms and uses time productively.

Use of Action Research

At the participants’ high school, Departmental Improvement Plans are developed, implemented and evaluated each semester. This timeframe holds teachers accountable to researching and implementing instructional best practices that support the Departmental Improvement Plan in a reasonable amount of time. At the end of the semester, team members discuss the work that has been accomplished toward their overall goal and
decide whether to continue with implementation of the same strategy or to move toward researching and implementing a new strategy. This process maintains the PLC principle of continuous school improvement, as all members of the faculty are working to move student learning in a positive directive.

*Accountability*

Every piece of work generated during collaboration time in this high school points back to accountability. Collaboration minutes, Departmental Improvement Plans, protocols, and student work from each teacher is part of the record of the work accomplished during collaboration. This level of accountability—knowing the collaboration facilitator hands all of these documents over to the school principal—serves the additional purpose of ensuring institutional implementation of professional development strategies in the classroom, where they leverage student learning.

Guskey (2000) defines professional development as the intentional, ongoing, systemic processes related to teacher learning in a school. Guskey (2000) also outlines the principles of effective evaluation of professional development, which include the premise that evaluation of professional development is systematic, which “implies that evaluation in this context is a thoughtful, intentional, and purposeful process. It is done for clear reasons and with explicit intent” (p. 42). Guskey (2000) describes Five Critical Levels of Professional Development Evaluation:

1. Participants’ reactions
2. Participants’ learning
3. Organization support and change
4. Participants’ use of new knowledge and skills

5. Student learning outcomes (p. 82).

In the participants’ school, evaluation of work was based on Guskey’s fifth level of implementation, student learning outcomes. Documentation of implementation was also collected in this school and serves as a collection of evidentiary artifacts of the implementation of professional research and learning.

Summary

The PLC, with its focus on collaboration, as a model for professional development, helped establish a culture of learning for the adults in this high school focused professional practice in way conferences, workshops, and other short-term professional development opportunities did not. Sustainability, then, with a deliberate focus upon action research related to professional practice, instructional design, and student learning outcomes, has proven much greater because the school built a collaborative model of professional development.

Chapter Structure

The proceeding three chapters will report findings from teacher interviews that can deepen the understanding of educators and policymakers regarding the impact of collaborative professional development on the instructional process, school cultural implications, and teacher efficacy. These are outcomes of teacher participation in formal professional collaboration. The fifth chapter will provide findings regarding participant data from the first study theme, including participants’ definitions of collaboration, with a comparison of their views to those cited in professional literature. The sixth chapter will
provide findings related to the study theme of positive teacher interdependence; the seventh chapter regards the theme of continuous school improvement.

As this analysis unfolds, it will be evident if the teachers’ perceptions of professional collaboration are congruent with the characteristics of research-based collaboration and PLC structures. As noted earlier, the context of the school requires adaptation of professional development models, which can impact the implementation and effectiveness of adult learning. Through the analysis of the information shared and viewpoints that are unique to the teachers’ perspectives, it will be clear if the adaptations made in this school align with the overarching values of the PLC model and if they have affected teacher efficacy in this high school. The common themes extracted from the interview transcripts will be highlighted and relate to ideas discussed in the review of literature.

In this study each audio taped interview was transcribed verbatim. The researcher coded the themes by hand to account for the experiences and personal opinions of the participants as they related to collaborative professional development. The participants were asked a series of open-ended questions that elicited their feelings, experiences, and beliefs as they related to the PLC model of professional collaboration in the context of their own large, suburban high school. Participants responded to these prompts in a neutral, non-threatening setting.

This chapter is organized thematically based upon the important hallmarks of professional collaboration and PLCs reported in the literature, as they relate to teacher efficacy. Analysis of the interviews revealed themes related categorically to each of the three tenants of the PLC model described by Eaker, DuFour, and DuFour (2002). The
three tenants are described below, noting the emergent themes under each of the overarching ideas:
Emergent Themes from Participant Interviews

Collaboratively developed mission, vision, values, and goals

Positive interdependence of teachers

Focus on continuous improvement

Common definition of collaboration

Perceived value of collaboration

Instructional Effectiveness

Shared goals for student learning

Shared responsibility for student learning

Collaborative lesson design

Consistency

Sharing of work products

Examination of student work

Use of school and student data for goal-setting

Collegial support

Accountability

Shared leadership

Change in school culture

Efficacy

Figure 3.
Chapter 5

Collaboratively Developed Mission, Vision, Values, and Goals

This study was designed to understand the nature of collaborative professional development and its effect on teacher efficacy. As the research unfolded, three overarching themes emerged: (1) Collaboratively developed mission, vision, values, and goals, (2) Positive interdependence of teachers, and (3) Focus on continuous improvement. Under each of these three themes, sub-themes emerged to support teachers’ perceptions regarding the three major themes. This chapter addresses the first theme, collaboratively developed mission, vision, values, and goals, as well as the supporting sub-themes of the common definition of collaboration, shared goals for student learning, consistency, use of school and student data for goal-setting, and shared leadership. These ideas emerged from extensive analysis of interview transcripts.

During the interview process, participants were asked a series of open-ended questions. The questions that gave insight into participants’ perceptions regarding these themes were:

1. How do you define professional collaboration?

2. How do you choose the focus of your work? Who plays a part in the decision-making? How do the needs of students impact your group’s collaborative goals?

3. How do you develop goals for your work during collaboration? How are these goals shared?

4. How are your group’s collaboration goals aligned to your school’s overall improvement goals?

5. Does collaboration build a sense of shared responsibility for student learning?
Teachers’ Definitions of Professional Collaboration

The establishment of common vision, mission, values, and goals is a key component of the PLC model. Fullan (2001) further supports this, saying “To achieve moral purpose is to forge interaction—and even mutual purpose—across groups” (p. 25).

The commitment of the faculty toward a common vision and mission varied, but all participants were aware that the work done during collaboration was related to school improvement goals. Because collaboration in this school was arranged departmentally, the depth of commitment to a common vision and mission, as well as to shared responsibility for student learning was also varied, based on the department’s expertise of functioning as part of a PLC school.

Teachers were asked to define collaboration to help ascertain participants’ perceptions of the concept of collaboration and to compare the participants’ definitions to definitions of collaboration from literature regarding professional learning communities and professional development. Every one of the 20 participants identified collaboration as a model that requires collegial interaction, with of the participant’s further describing collaboration to include the development and refinement of instructional work products.

One teacher defined collaboration as “teachers coming together to discuss various ideas, problems, solutions that they have found through their teaching experience.”

Another participant discussed challenges and the development of work products:

Professional collaboration is bringing together different teachers in various ways, professionally, in terms of each other working as professional colleagues in a workplace, such as a community like [this high school]. And [asking] what are we trying to do in order to build a community of learners at [this school], and how can we continue to implement that to fulfill that goal. We come together also as teachers of one particular discipline, and we compliment each other, share our ideas with each other, bring our expertise together to really raise the bar and be the best that we all can be for [our school] and for our students. And, in doing so,
we come together, we share ideas, we share strategies, we share failures, we share successes, we support each other, we just help each other in whatever way we can so we not only are better professionals, but that we bring that to the [school] community for the betterment of our students as well.

The definition of collaboration given by participants also reflected the promotion of common school or departmental goals. These shared goals provide a basis for the PLC principles set forth by Eaker, DuFour, and DuFour, and guide the work that teachers do in collaborative meetings:

I think it’s a group of teachers or professionals gathering together to discuss topics that would further our professional goals and mostly those that would impact student learning and thinking. So, if it is formative assessment or ACT, everything we do, really, is driven by this—what the students need. And, when we gather together, that should be our main focus and whatever we study needs to be for the best of the students.

Another teacher provided a definition that reflected an emphasis on common goal setting, saying that collaboration is “working together with a group of peers to develop instruction that meets your goals.”

This data from participants reflects a shared understanding of the definition of collaboration and demonstrates a common use of instructional or professional development vocabulary related to the concepts and principles of a PLC, which provided the foundation for the change process in their school.

**Shared Goals for Student Learning**

Evidence that teachers at this high school suggests that support the PLC principle of shared student learning goals is present in the data. Teachers embraced the concept of collaboration, and one comment captured the essence of commitment to the PLC concept of shared responsibility for student learning:
For me, there’s . . . working through things. You know, looking at this year, as a department for example, we’ve taken a look at student work and I used to not think that was that great when I started teaching because I didn’t really know what I was talking about. I think when you look at student work it opens eyes, and not just my students by other students in other classes and see how other teachers present the same information, but in a different way. I learn a lot from that and I’ve picked up ideas and I think we have some pretty talented teachers.

The structure of professional collaboration in the participants’ school facilitates bi-weekly conversations regarding student learning goals and departmental goal planning. The idea that an ongoing focus on common student learning goals emerged from the data, supported by one participant who said:

Anytime I can gather information with somebody who’s wrestling with the same problem I can improve faster which means the kids can learn better and faster. And they can learn at a deeper level because we’ve talked about it. It’s just how we do things here now. We just talk about it and go okay, and people solve these problems and then we’re excited and happy because we can go onto something else—like teaching!

As supported by PLC literature and literature regarding the change process, the continuous focus on student learning outcomes can build both goals for student learning that all teachers share. The idea that teachers in each of the school’s departments were working toward common academic and student learning goals played a role in teachers’ perceived value of professional collaboration. One participant identified this as a way teachers shared responsibility for student learning and were accountable to each other:

The work that we do is a reminder to me and to my colleagues that we are responsible for the learning that goes on in the classroom, and it is really a good way and a good opportunity for us to share. It goes without saying that when that’s on the table everyone’s held accountable for the learning in the classroom.

Shared responsibility for student learning also emerged as a means for teachers to diagnose student needs. Reeves (2010) says a key to effective professional development that impacts student learning is having teachers consider the causes and effects of student
learning, focusing on the “causes that are within the sphere of influence of teachers” (p. 15). This concept was evident in the practices of teacher collaboration at the participants’ school:

I think that we look at what our students are struggling with in terms of what they need help with.

Reeves (2010) also explains that there are three essential characteristics of effective professional development: (1) a focus on student learning, (2) rigorous measurement of adult decisions, and (3) a focus on people and practices, not programs (p. 21). By focusing on people and practices, research participants explain that their instructional expertise and confidence have grown. One teacher reported:

I am more in-depth. I have more strategies. I probably have more professional relationships . . . I feel like I have a grasp of where we’re going.

Engaging in “authentic joint work focused on explicit, common learning goals” for student learning, as emphasized by Schmoker (2005) is an important key in the PLC process. One teacher noted the increased professional attention paid to her own learning:

I’m more conscientious about my professional development now. I think in the past I went off my own gut. Now it’s really more focused.

Professional literature related to professional learning communities firmly promotes a single goal: student learning. In this high school, participants focused the work done during collaboration on student learning outcomes, and regularly shared examples of their work toward classroom implementation of research-based best practices with other colleagues. This sharing of work and the ensuing discussion reflected the shared goal of student learning. One teacher said this practice is helpful in keeping everyone calibrated to the same instructional goals, stating, “we can get together
with a group of people we share ideas, we can have common goals, we can have common assessments, and hopefully a common outcome.”

Teachers of all levels of experience who are collectively focused on improving student performance are the most effective collaborative professional development teams according to Reeves (2010). As teachers share with each other, veteran teachers are able to assist novice teachers, while novices are able to help veterans maintain passion and energy for the profession. Reeves (2010) states that collaboration must include “focus, repetition, and effective practice” (p. 51). As teachers with all levels of experience share their work at the collaboration table, there are benefits for teachers with different levels of teaching experience, according to one world languages teacher participant who related:

We have found as a department that the strategies that we have shared with each other throughout the collaboration, in years of collaborating together, that they have just added for us a portfolio that we continue to add to each year. For example, I mentioned the comparison matrix that we did I believe two years ago. We continue to bring that back at certain times of the year when it works with something that we do. Last year we started with bell ringers, things that really got the students going immediately when the bell rang, get them focused and on task immediately. And we shared with each other recently as a department that this is something that we found valuable, we’ve put it in our little tool bag and we continue to use that constantly. And then this year of course we’ve shared so many strategies toward differentiated instruction with each other that it’s just something that then we can add to our tool bag and give it to the next teacher that comes along and the next teacher that comes along. And we also shared that we have three new teachers coming in next year and we shared how wonderful it is to be able to take the expertise of the old teachers, the ones that have been there for five, six, ten years also, and then to share that with the new teachers, and the new teachers really shared their gratitude and appreciation for the gift that is, if you will, for them to be able to come in and just to have a file of things ready for them as a new teacher to begin with and the experience of other teachers. And then, of course, we appreciate their new ideas, especially in technology, and their enthusiasm, and it really opens our mind also and it keeps us alive, those who have been there for a while. So just working together and collaborating I think is what it’s all about, is working together as a team no matter where we are. If we’re in the school setting or wherever we are I think it’s really all about working together with other people, communicating, helping each other out constantly.
Consistency

The PLC structure requires what Eaker, DuFour, and DuFour (2002) call collective capacity. This supports Stiggins (2005) formative assessment, in which teachers work together to develop common learning objectives and common assessments to inform instructional design. These tools form a foundation for the work being done in classrooms. For participants in this study, the value of collaboration was based on the instructional consistency established across the classrooms in the school.

The development of common instructional and academic language was said to benefit not only students, but also teachers, as members of the learning community came to have shared understandings of instructional strategies and defined academic terms in much the same ways. One participant described:

The benefits are that every teacher, not just in the department, but in the entire school, when we use terms each teacher across the school knows exactly what the term means. It doesn’t just have a different definition for everybody to use for their own classrooms.

Data from participants demonstrated the perceived value of collaboration came from the notion that it “got everyone on the same page.” One participant, a math teacher, explained:

I think especially the past year we’ve noticed that district-wide and through our school everything’s about the same. Our math goals for the district are the same goals that we are doing within our high school I think that has helped a lot. We don’t feel like we are overlooked when we are all shooting for the same goal.

Consistency is built on Gallagher’s (2009) idea that “when we focus our attention in one area, we can reach a state of purposeful interaction that yields powerful emotional, physical, and professional results (Reeves, 2010, p. 64). Reeves (2010) explains that effective collaboration that is focused on teaching builds consistency through “deliberate
practice” of collaborative focus (p. 65). A participant shared ideas regarding this practice in his school:

It provides a coherency within the department, and a consistency throughout the department that the students see. And, in tying that with our department, in tying our departments in with the building plan, it also provides a consistency throughout the building.

The notion of gaining ideas and building consistency is echoed in the literature when DuFour, Eaker, and DuFour (2005) describe the concepts of the PLC required to move a school to collective focus. They describe it as “gaining common ground.” This idea was forwarded by a participant:

The benefits I see as a department we come together better as far as everybody in [common courses] doing the same kind of thing and we get to feed off of each other as far as ideas and how to teach different things.

The common understanding achieved by teachers during collaborative professional development in this high school was described as “provid[ing] an opportunity for everybody to be on the same page, but it also allows everybody to see different aspects of things that maybe you weren’t realizing before about a strategy or the way something functions in the classroom.”

Another participant focused on the impact of instructional consistency on student learning, saying, “it’s just really good for the students to see that the teachers do work together . . . for us personally and individually [as teachers] it really gives us the chance to expand, to get new ideas, to talk to each other.”
Use of School and Student Data for Goal Setting

Participants indicated that a strong commitment to school-wide adult learning. Teachers in this school meet both during bi-weekly collaboration time, as well as during job-embedded professional development (JEPD) sessions that occur during teachers’ planning times. The school used this time to build professional learning topics into strategies that were related to the school’s data, with implementation commitments built into the professional learning structure. A teacher described how this structure ensured professional learning that went beyond the impact of one-time workshops:

Most of our PD is job-embedded on conference periods, but we also have, I believe, two half day release times per our district requirements, so we spend the bulk of those half days on those items. Like our ACT reading was a half-day PD. But then we also have collaboration time in which we try to go deeper with any of our job-embedded PD work. So it’s a very articulated plan. There are no one-shot workshops where it’s like, okay, that’s nice, throw it in a file. It’s okay, we did this, now let’s bring it back. We go over something in PD and then we have an assignment, a homework assignment that you then do and then you go over that in your collaboration time, and then you might revisit it at a later PD. So it’s very planned out. Our principal is very organized that way. There aren’t just one-shot things that you do and don’t worry about again.

In describing the work products generated out of collaboration, there emerged in the data a systemic focus on the practice of establishing a departmental improvement goal, which served as the guiding force that helped drive teachers determine the work products that they would generate. Work products were then used by teachers to evaluate the effectiveness of instructional strategies. This process involved developing common lessons and collecting common data that teachers all brought to share with their colleagues during collaboration. One participant explained:

It started out we would develop a lesson and then we would also have to develop an additional lesson on our own, but we would put one together and then
everybody would teach it. We would bring back our feedback from how we think it went as well as the student work to critique. We would also collect data on what we did pertaining to maybe an assessment that we gave and how that lesson would help them. We also sometimes taught it one way in one class and then a traditional way in a different class so that we would have data to be able to compare. Normally when everybody brought in the data everybody’s pretty much came back very similar.

Another teacher described action research as a guiding force behind the collaborative work of her department. Reeves (2010) acknowledged action research as a part of effective professional development, so long as teachers understand their inherent biases in the process of analysis. At the participants’ high school, student work is examined to ascertain what strategies to implement in classrooms to improve student learning. This was explained by one participant:

Well depending on our question that we’re studying, if we have an action research cycle, usually we have a question, so often times we’ll bring student work to the table, then we analyze for trends and then in looking at the data we might go back and clarify and try to improve upon. If they were low scores we look for trends, we implement new strategies to help, you know, solve our problem. We might pre-impose tests to see where our strengths lie or if we’ve made any improvement. So a lot of the things that we look for are student work at the initial phase. Now there are other times when we have to develop a common rubric or, you’re not holistic grading, but something that would get us all on the same path that we can all use in our classroom.

The process of collaboration in this high school is built upon departmental goals and shared accountability. Teachers establish timelines in each of their collaborative groups that helps drive the completion of the work. Even though most groups intend to share student work during each action research cycle, one teacher noted that sometimes the development and implementation of a common lesson or strategy can take longer than anticipated, making the examination of student work occur less than they would like.

Well we come knowing what our, what the next time is cause it’s laid out by month. Like in the month of February we got two weeks and this is what we’re
focusing on during this time, so here’s our plan. We’re going to discuss what sort of lesson we’re going to use to implement this strategy and then maybe spend two weeks on that, like first week discussing it, come back with the lesson, maybe talk a little about what you’re still planning on doing. And then maybe in March we’ll talk about discussing how it worked in the classroom with examples of student work and sharing that student work. We probably don’t do that, sharing the student work, as much as is probably designed.

**Decision-Making and Goal Setting**

As described in professional literature relating to professional learning communities, teachers must articulate three important things to drive student learning:

1. What do we want each student to learn?
2. How will we know when each student has learned it?
3. How will we respond when a student experiences difficulty in learning?

(DuFour et al. 2004).

As these three value statements indicate, it is necessary for teachers to establish and focus on common student learning goals. Teacher participants were asked two interview questions related to collaborative goal setting:

1. How are the goals developed for the work of collaboration?
2. Who plays a part in that decision-making?

These questions elicited responses that helped determine what importance was placed upon student learning as the collaborative groups established goals for their work. As teachers explained the process of goal setting in collaborative groups, student learning was emphasized, with three teachers explaining the focus on student learning. The first said, “The needs of students are at the forefront. It starts stemming from where, what are the needs of students and how can we, how can we accommodate those?” The second indicated, “It’s all about student learning and student driven content, and that’s absolutely
evident in every single collaboration that we have. Rarely do we have a conversation that isn’t about student learning.” Finally, the third said, “The student need is the primary focus that we bring to each collaboration. And we share how the students are doing . . . and what the children’s needs are and how they’re responding to that are certainly the goals, so we’ll lay those on the table and help each other with strategies. How can we better improve this situation or this learning?”

Student needs emerged in participants’ responses regarding the focus of collaborative goals, supporting the professional learning communities tenet that meaningful instructional reform begins with a shared focus on student learning outcomes. One participant said local student data is most important in driving the work of her collaborative group:

[I] look at the data of students’ test scores and learning. I go out and research topics on my own like I had mentioned earlier. We haven’t as a collaborative group of English teachers brought together any research you know from outside our department or building. We could but we haven’t. We’ve had research brought to us through some of our guest speakers like Marzano. In the different materials that [the principal has] given us to read, articles and the books on assessment, there’s research and data within those. So by simply reading those we are conducting research . . . We research the building. Student learning was described as “the utmost importance of what we’re doing,” with further explanation regarding the implementation of instructional strategies related to student learning needs:

What I’m doing, my collaboration, I’m thinking of how is this going to affect my students? How am I going to be able to engage my students? Is this strategy we’re talking about something that’s going to be useful in my room? . . . So to me that’s the ultimate concern. Student learning data was described as pivotal in helping collaborative groups determine student learning goals:

I think we have to look at where the data has led us over the last few years. If we see that students have had a dip in their ACT scores or their EOC scores then we
definitely need to address those areas so that they can raise their scores, not only for themselves but also for us as a district and school. I think that we look at what our students are struggling with in terms of what they need help with. If they are not where they need to be, as proficient as they need to be with say comparison and contrast, which is a very difficult skill, then we have to show them ways to get there.

As teachers described who played a role in that decision-making, participants reported that departmental goals were made by achieving consensus with all members of the team. Participants also stated that all teachers in the collaborative groups shared responsibility for both helping establish goals as well as for working to accomplish them.

All of us make decisions. Our representative meets with the faculty group of representatives from each department and brings the agenda if you will, and from there it is really all of us that share, and I appreciate that because I think a department is made up of, is so many different people with so many wonderful ideas that what one doesn’t think of the other one always does, and so, because we all have different students and we all experience, we come from different places and we have different experiences, so I appreciate that we all jointly really, if there’s any time we have to make a definite one decision, it’s a consensus, and I appreciate that. And I’m going to have to ask you to repeat the second part.

Shared Leadership

Reeves (2010) explains that it is important to remove obstacles to teacher leadership for professional development to be considered highly effective. He summarizes that hierarchical leadership structures exist in schools, as they do in all organizations, and that these structures must be supplemented with leadership networks for teachers to become part of to establish shared leadership. He states, “The test of effectiveness is a balanced combination of documented improvements in student learning and professional practice” (p. 78). Fullan (2005) says that sustaining school
improvement is contingent, in part, to “intelligent accountability and vertical relationships” as well as the “long lever of leadership” (Reeves, 2010, p. 86).

Drago-Severson (2007b) calls this shared leadership “providing leadership roles” (p. 107). She says, “Mindfulness of developmental diversity can help in creating roles that serve as contexts for developing adults’ capacities to manage the complexities inherent in our professional and personal responsibilities” (p. 10). Elmore (2000) says “the purpose of leadership is the improvement of instructional practice and performance, regardless of role . . . instructional improvement requires continuous learning” (p. 20). Inasmuch, leadership must be shared to build and sustain meaningful change in a school (Elmore, 2000; Drago-Severson, 2007b).

Teacher participants in this study were asked, “Who monitors the work of collaboration?” Their responses to this prompt provide insight into the structure of collaboration in this high school, where a teacher leader serves as the ‘community facilitator’ for each department’s collaboration group. Community facilitators meet with regularly with the building’s instructional coach and principal prior to each collaboration meeting. There they gain insight into the work that is going on in each of the teams, as well as learn what data or research might assist in their work toward their building and departmental learning goals.

We have a community facilitator who looks over our collaboration as a department . . . And then we fill out a DIP (Departmental Improvement Plan) at the beginning of the year and the DIP doesn’t really mean anything if we don’t have data or examples, so those are things that as a department we [gather] data, you know, where did my kids improve, where did they not improve? Sometimes it just deals with student work and examples of what they did to show through the DIP we’re working through these things. And then, from that I feel like the administration team, instructional coach, sit down and talk. We’ve gotten back DIPS before that say “This is good, but this needs to be more focused,” which I think is good. I mean the feedback is big as far as focusing us because you can
easily get away with setting goals that are too broad and you know I think as a department, especially our department, needs to be focused—very, very focused. I feel like from the administrative side of things you know that data’s looked at, examples of student work, or whatever we might have to turn in.

The community facilitator role is a teacher leadership role that is filled by teachers who do not hold leadership positions in any other capacity.

Well our facilitator is the first line and they help gather the data, and then they turn it into the instructional coach, and we usually organize it for the administrative staff and all work goes to the principal who goes over everything. [The principal] reviews it, comments on it, so really everything has to drive that to the principal for that accountability.

The data indicated that the school principal played a critical role in keeping the work of collaboration organized in this high school, monitoring the work completed during professional collaboration, providing critical feedback to the groups, and researching student and adult learning needs.

Our principal monitors collaboration but we also, I mean she set things up so that we know what we’re doing. [She lets us know] “Here’s what I need and I need it by now.” She doesn’t micromanage it in any way. [She provides guiding questions like] “What do you have? How’d you get there? Write it up.” So, I’ve done a lot of self-reflection and the self-reflection can be as much on what didn’t work so well and so then what [am I] going to do next. Or, I thought it turned out good, [so she asks me] “let me know how that works.”

Sparks (2005) says, “Leaders matter in the creation and long-term maintenance of professional learning communities. The quality of teaching, learning, and relationships in professional learning communities depends on the quality of leadership provided by principals” (p. 156). In this high school, teachers reported the principal as a leader who asked many guiding questions that allowed them to frame their own thinking, causing them to engage in self-reflection. Asked to describe the leader of the work of collaboration, participants said:
The principal. It is a culture in our building to be told, but she asks, “How have other people solved this problem?” And I find I do that with the rest of the department, and say, “Hey, we’ve solved this problem regarding the benchmark, share with your team.” We are asked to perform at such a level that I think the only way to survive in teaching is to collaborate. You cannot do it by yourself. I think collaboration and professional development will help solve the problem of teacher turnover in the first five years, because if you think you are the only one with problem X with students, then you’re going to burn out. You can’t do it.

Finally, teachers said that the principal provided leadership for their work in classrooms by modeling the instructional behaviors she wanted them to use in their work with students. This was described as much different than the previous principal’s leadership of professional development, which included one-time workshops and no time or accountability for reflection and implementation.

Before structured collaboration you’d go to something—it was a one shot workshop—you’d come back, throw the file folder in the trash. I wish I’d kept a few drawers full of this silly stuff! There was no accountability. You’d sit and think, “I already know that.” Our principal has done a lot of survey work in this building and then she demonstrates to teacher how it will work in the classroom. [We are] probably the worst classroom in the building! [She will tell us] “You said you needed [to learn this], so this is driving our PD.” Kind of like she tells us, “these are the results in the classroom, describe your instruction.” What we say we need, what she sees as problems, [are what we study]. So you feel like you have a voice in it. And so prior PD, when it was just these workshops, I disregard those; it’s not going to go anywhere. But now we know it is going to go somewhere so you do it, and you’re part of it. So you’re as obligated as the principal to make sure it goes somewhere. She helps us with what we need; she’s not there to make it hard.
Chapter 6

Positive Interdependence of Teachers

Teachers who participate in collaborative professional development become dependent upon each other for guidance, establishing a positive interdependence among the adults in a school. Hord (2007) says collaborative learning should be at the center of the school, with two specific support systems. She says that this kind of learning is built on two requirements: (1) creating a rich learning community for adults requires human and material resources, and (2) relational conditions are essential to establishing a community of learners (Drago-Severson, 2007a, p. 23). Drago-Severson (2007b) further says that “engaging in teams provides adults with opportunities to question their own and other peoples’ philosophies and assumptions about leadership, teaching, and learning (p. 23).

Through the development of what Drago-Severson (2007b) calls “collegial relationships,” teachers develop positive interdependence that deepens learning (p. 73). Collegial relationships, according to Drago-Severson (2007b) are “harder to develop than congenial relationships but can occur when teachers

1. Talk about practice (e.g., curriculum, team teaching, assessments);
2. Share craft knowledge (what works, what doesn’t);
3. Observe one another (Class visits that include follow-up conversations and feedback); and
4. Help one another (teachers helping struggling teachers) (p. 73).
Barth (2006) further reports “principals can promote collegial relationships by stating expectations clearly from the start, modeling collegiality, and rewarding those who engage in collegial relationships (Drago-Severson, 2007ab, p. 73).
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<tr>
<th>Type/Purpose of Team</th>
<th>How Team Supports Adult Learning</th>
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| Cross-functional (e.g., cabinets, instructional leadership teams, quality review teams) | • Adults give and receive feedback on ideas, proposals, and practices.  
• Adults learn from multiple perspectives.                                                                                                                                                                                                                                                                                     |
| Teaching                                                      | • Adults give and receive feedback on ideas, proposals, and practices.  
• Adults learn from multiple perspectives.  
• Adults develop awareness of assumptions guiding practice.                                                                                                                                                                                                                                                                 |
| Strategy development and shared decision making               | • Adults give and receive feedback on ideas, proposals, and practices.  
• Adults learn from multiple perspectives.  
• Adults develop awareness of assumptions guiding practice.  
• Adults share and include others in leadership and decision making.                                                                                                                                                                                                                                                                       |
| Discussion of curriculum and student work (e.g., subject area teams, grade-level teams, and vertical teams) | • Adults meet regularly to discuss curricula and to share lesson and unit plans and what they have learned from implementing plans and curricula (success and challenges).  
• Adults alter practice based on feedback from peers, coaches, and supervisors and shared discussion of curricula.  
• Adults review curricula/student work to assess the effectiveness of curricula and/or their pedagogical practices, teaching strategies, and assignments to students.  
• Adults use protocols to analyze curricula and/or student work and examine data to understand students’ needs.                                                                                                                                                       |
| Inquiry                                                       | • Adults meet regularly to discuss curricula and to share lesson and unit plans and what they have learned from implementing plans and curricula (success and challenges).  
• Adults review curricula/student work to assess the effectiveness of curricula and/or their pedagogical practices, teaching strategies, and assignments to students.  
• Adults make recommendations and suggestions for altering practice based on shared discussion.  
• Adults use protocols to analyze student work and examine data to understand students’ needs.                                                                                                                                                                                                                       |
| Critical friends                                              | • Adults give and receive feedback on ideas and practices.  
• Adults learn from multiple perspectives.  
• Adults develop awareness of assumptions guiding thinking and practice.                                                                                                                                                                                                                                                                 |
<p>| Professional learning and development                         | • Adults meet regularly to create plan/vision, establish professional learning goals and assess progress toward them.                                                                                                                                                                                                                                                                                       |</p>
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<th>Type/Purpose of Team</th>
<th>How Team Supports Adult Learning</th>
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<tbody>
<tr>
<td>Instructional leadership</td>
<td>• Adults meet regularly to create plan/vision and assess progress toward it and to establish goals and plans for achieving it.</td>
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| Study and discussion (e.g., a book group) | • Adults meet regularly to discuss pedagogy and share lesson and unit plans and what they have learned from implementing plans and curricula (success and challenges); they discuss and critique observed practice.  
  • Adults alter practices based on peers’ feedback and shared discussion of practice.  
  • Adults review, assess, and offer ideas to enhance pedagogical practices and teaching strategies.  
  • Adults use protocols to analyze pedagogy. |
| Engagement with outside experts and partnerships with other organizations | • Adults are invited into shared dialogue regarding schoolwide curricular issues and plans.  
  • Adults seek counsel and feedback on ideas, proposals, and initiatives.  
  • Adults learn from multiple perspectives and mutually beneficial partnerships.  
  • Adults share with and include others in leadership, benefiting from multiple thought-partners. |
| Action research | • Adults decide collaboratively or independently to investigate a problem/challenge/question related to practice.  
  • Adults investigate issue/question through research (individually or in teams).  
  • Adults meet regularly to discuss data, learn, seek alternative interpretations of data, share insights, and formulate questions for further exploration based on learnings.  
  • Adults alter practices based on learning from research.  
  • Adults review and assess learning and offer ideas and next questions to explore. |

Drago-Severson, 2007b, pp. 87-88
A motivational factor behind teacher interaction lies in its direct connection to the everyday work teachers must do. As teachers engage in collaboration, they listen to their colleagues and are forced to formulate responses that require them to articulate their instructional purpose, the expected outcomes, and reflect upon how closely their results match their intentions. In this school’s professional development structure, collaboration facilitates this process of collegial relationship building, by serving as a forcing function for interaction. Additionally, the interactive dialogue expands the expertise of individuals, utilizing the pooled experiences of multiple people. Collaboration also helps teachers remain focused on the mission of education and helps fend off teacher burnout, which is caused by continuously acting without purpose.

Collegiality is a value of collaboration that study participants cited in their descriptions of the consistency that has developed in their personal practice and in the school environment. Collegial relationships break down the barriers of teacher isolation that are common in many secondary schools. One teacher described the feelings of isolation:

High school teachers, I think more so than any others, feel very isolated. You get in; you have so many things on your plate. You get in your classroom and feel like there’s no one else around. And that’s unfortunate. I feel so fortunate to be in a school where we not only have a large department, but we have colleagues that just share constantly with each other. When I first began, not so much. We didn’t share near as much as we do now, certainly within the department. And I felt isolated. And now . . . you don’t feel so alone.

For novice teachers, giving and learning from feedback, as described by Eaker, DuFour, and DuFour (2002) is part of the structure of meaningful collaboration. One participant, a first-year teacher, said, “Anybody in our department is always willing to help and especially when you’re a first year teacher coming in there were a lot of people
that helped.” A veteran teaching participant described the reciprocity of the novice-veteran relationship in more detail:

It goes without saying that it creates a bond within the department, but more than that, a trust within the department . . . the older teachers are able to share their knowledge and expertise and wisdom, if you will, with the younger teachers, who are very appreciative of this. And the younger teachers are able to share their energy, their new ideas, and their creativity with the older teachers and in sharing with each other, it’s good then when an older teacher brings an idea out that they’ve had for years and the younger teachers think, “Wow, that is great!” I gives us a little pat on the back, like, okay, maybe that is a good idea. It also reminds us of things we’ve used, maybe in the past, that we can bring back out again that we’ve forgotten about.

Drago-Severson (2007b) views teacher teams as sources of individual and school growth and development. Osterman and Kottkamp (2004) identify the reflective practice that is inherent in functional collaborative teams as “a process of identifying, assessing, challenging, and altering the fundamental beliefs and assumptions that influence our behaviors” (Drago-Severson, 2007ab, p. 75). Drago-Severson (2007b) further says “Teaming provides a fresh pathway for this as it centers on adult collaboration and dialogue.

Collaboration in this high school brought people together and helped them form close professional relationships. These served to build trusting relationships that prompted in teachers a willingness to listen openly to new ideas. The feeling of closeness was described as very important, in that, “it unifies, it builds, it just makes us feel like a family and that we’re all in it together and it’s all for the best interests of our kids. It’s just developed a positive culture for [our school].” Another as described it as:

Making me more open to suggestions, more open to new ways of doing things. I hope I never get to the point where I’m done learning how to teach, and I think with collaboration that it always forces you to kind of be on your toes and willing to take criticism, willing to take praise, and to do the same for your colleagues. It keeps me sharp.
The value of sharing and teamwork are further confirmed by a participant:

I just think it’s very beneficial as a team and to be part of a team than to be coming into something where you’re all individuals and you don’t have that assistance or you don’t feel comfortable with that kind of situation. I think it’s one of the best things that has happened throughout the years that I’ve been teaching and it has given us time to do that within our day and not just on our own time.

The benefits of collaboration are not established quickly. In fact, most of the professional literature regarding teacher professional development advocates for job-embedded models that allow for sustained interactions. The collaboration model at the school where the participants work is such a model, having been in place for four years. It affords teachers the ability to study instructional strategies over the course of time, through implementation, reflection, and evaluation. Drago-Severson (2007b) and DuFour (2002) say the allocation of school time for collaborative interaction is crucial in establishing highly functional collaborative teams.

This job-embedded, sustained nature of collaboration was what several participants noted as a valuable aspect of their work. A veteran teacher contrasted the type of professional development she experienced in the initial years of her career with the collaborative work she now does:

I’d say what we do is over time. I feel like from when I started teaching to now they’re not really one-shot deals anymore. I mean there’s not a professional development day where you kind of go back and talk about something and that’s it. I feel like we definitely do a good job of embedding stuff over time.

There’s value “just because you’re actually following through on a thought and not just a one-time shot,” according to one teacher. Shared understanding of instructional processes is built in this school because all members of the faculty have experience with the same strategies. This was explained by a participant:
I think most of our PD in our building, specifically, is ongoing. Normally we have a topic that’s presented like our descriptive feedback or our ACT questioning, and it really is implemented the whole entire year. The best example was when we started those Marzano strategies about three years ago, I think you could go into any classroom this year and ask for formative assessment samples and there would be a common language within the building on formative assessment. And I also think ACT questioning, since every teacher not only took a test, but gave examples as well and wrote the questions. I think there’s higher accountability.

Teachers’ Perceptions of the Value of Collaboration

Drago-Severson (2007b) explains the importance of teaming in terms of discovering “big truths.” These, she says,

Guide our thinking and actions. We do not question them unless we develop awareness that we are holding these assumptions. As human beings, we all hold assumptions. For example, superintendents hold assumptions about what makes a school system work well, principals hold assumptions about leadership that guide their thoughts and actions, and teachers have assumptions about pedagogy. Developing an understanding of our assumptions by examining them critically through reflective practice cultivates meaningful personal and professional learning, behavioral changes, and improved performance (p. 76).

An importance of collaborative professional development lies in the realm of teachers’ perceptions of the instructional and cultural value the model provides them and their school context. Upon analysis of the participants’ responses regarding the value of collaboration, several key themes were discovered regarding the value of collaborative professional development. Participants indicated that they had an increased sense of responsibility for student work, felt additional responsibility for measuring the effectiveness of their instruction on student learning, and felt that collaboration provided consistency throughout the school that benefited the students and their learning. Another notable benefit, according to the data, was the sense of collegiality that occurred as individual isolation was overcome through a sense of professional collaboration. Finally,
the job-embedded, sustained structure of the conversations that occurred during collaborative professional development was perceived by participants as a value of the collaboration model.

**Shared Responsibility for Student Learning**

Collaboration was reported by participants to have built shared responsibility for student learning. Evidence in the interview data from veteran teachers who cited professional collaboration as one of the most meaningful professional development activities they had participated in during their careers. They reported that collaboration had helped them gain new instructional ideas and opened their eyes to the struggles both they and their colleagues have faced. They also felt that teachers were collaboratively working toward improved student learning. One veteran teacher reported on the value of collaboration:

> In the past few years, it became very comfortable to stay inside my box and not step outside. I’m comfortable with what I’m doing. In my view it seemed to be working, but probably wasn’t as well as I envisioned. And, so, for me to go ahead and step out and say there’s room for improvement here.

Another participant, a 25-year veteran of the high school, said:

> It’s been one of the most positive and rewarding experiences in the career, basically. Not only from the perspective of the teacher, but also through the eyes of the students and I would hope through the eyes of the administration. I can’t imagine not doing it, honestly. I cannot imagine not doing collaboration. It’s been one of the most positive experiences in the 25 years I’ve been here.

The formal model of professional collaboration that the participants used increased their beliefs in a common responsibility for student learning. This belief was articulated by the study participants, who felt that the formal collaboration structure
provided an outlet for them to share instructional ideas and to gain knowledge by
listening to the expertise of their colleagues:

Professional collaboration is bringing together different teachers in various ways, professionally, in terms of each other working as professional colleagues . . . in order to build a community of learners . . . and how we can continue to implement to fulfill that goal.

Sharing of Work Products

Collaboration in this school is structured in such a way that all members are contributors to the group’s work. In this school, value is placed in each individual’s knowledge and the understandings that can be shared to lessen each individual’s workload:

It [collaboration] raises the bar. I have to publicly contribute what I am doing. And it’s not acceptable to blame it all on the kids—they just needed to study. You are part of a team, you’re part of a grade level, you’re part of content, you’re part of a building, and so what can I share. It makes you want to become an expert at something.

The implementation of instructional strategies and the collection of the student work products they generate also provide for a heightened sense of responsibility for student learning in the participants’ school. As teachers in this high school are responsible for collecting data and producing artifacts that demonstrate measurement of work toward student learning goals, they also report feeling a greater responsibility for student learning. One said, “It makes you, by having to collect data and having to show that data, feel like we are responsible for what we are teaching.”

Another teacher described professional accountability for the work her students generated because she, in turn, would share the work with colleagues during collaboration. She also noted that this level of collaboration prompted teachers to
implement new instructional strategies when they might not otherwise try new things, simply because they will have to share their work with their peers:

I just know that I’m going to be showing and sharing what my students have done and so in a sense I guess it would give me, what’s the word I’m looking for, that I want to show what my students have done and be proud of what they’ve done, so I’m going to create my lessons and design them so that my students are showing growth, so for me would be a backwards design. They’re here, I want them to be able to do well on the ACT prose passage so here’s how we’re going to process it and here’s how we’re going to debrief it and look at it. So, it’s accountability on some students, or not students, but teacher’s part. I think there are teachers that wouldn’t do some of the types of lessons or lesson planning if they weren’t being forced to share or to work with other teachers.

**Collegiality**

The value of collaboration for several participants was found in the struggle to overcome difficulties. This interdependence occurred when teachers were willing to share insecurities, trusting others with “not knowing.” One teacher was candid, stating that collaboration “caused me to rethink what I’m doing, making it better.” Another believed that the most valuable collaborative work developed when there was “somebody struggling with something.” One participant said that sharing these struggles brought unity:

I think it makes us all cohesive as a group. When we have our big school meetings or even in our small group setting, I think that everybody feels comfortable saying how they feel and what they think would benefit us more. The greatest value of collaboration was reported as, “it makes me see the impact you can have if we do things right.”

A known benefit of collaboration lies in the concept of pooled intelligence. This concept is founded upon the premise that collaboration prompts all participants to share their expertise, thus increasing the knowledge and skill of all members of the group.
Several teachers reported the value of collaboration, from their perspectives, was related to this concept of pooled intelligence. One said:

When you get to come back [to the group], we get to hear other peoples’ experiences and take what worked and [what didn’t]. I just feel like I learn so much more. Not just about that area that we’re studying, but about teaching in general.

The value of collaboration for many of the teacher participants was found in the in the shared accountability that all faculty members feel for student learning. The expectations of others helped establish a positive culture of interdependence that made all teachers feel as though they played a part in the decisions of the group. This accountability was articulated by one participant:

[Collaboration] keeps you accountable. I want to know, I want to be up there with everyone else knowing that what I’m doing is for my students and if I refuse to listen to anyone else it’s a very selfish thing. So, by collaborating, I’m getting ideas from everyone else not only to better myself, but to become a better teacher for my students. So it’s a way to keep me accountable.

Another teacher described the positive interdependence gained through participation in collaboration as being responsible for the energy to persist through challenges. She said:

Having those conversations just, they energize our teaching. You get this synergy going and it’s a constant thing where somebody has solved a problem. Collaboration puts the teachers in the role of a classroom of learners. So, if it’s my responsibility to bring something to the table, then I need to do that. It sets a culture that we’re on a journey of learning too, that we don’t have it all figured out, but that’s our job. Our job is to figure it out together so that the kids can learn. It provides a very positive culture.

Drago-Severson (2007b) describes the benefit of collegial inquiry. She says “when teachers, or any adult for that matter, engage in reflective practice, they have the opportunity to become aware of their own and others’ thinking and assumptions’ (which guide behavior). This awareness can, in turn, clarify thinking and help us better understand our behaviors, leading to growth. The ultimate goal of school wide
(collective reflective practice is . . . increased student learning” (p. 155). This consistency is built when colleagues come together and share their work.

As teachers worked together in collaborative structures, they developed trusting collegial relationships that enabled them to be deeply reflective of their work in the classroom. Bolster & Henley (2005) say, “Finding a strategy that encourages and/or supports individual teachers to change their behavior and/or to tailor their instruction so that more students are successful is a challenge” in the school environment (p. 3).

In schools that are highly collaborative, positive instructional changes are more likely to occur; since the entire school culture is focused upon student learning and the adults in the school setting trust each other and encourage each other’s work. Teacher participants were asked to describe changes in their instructional practices that occurred as a result of their work in collaboration with other teachers. Their responses provided insight into the value of a high school that is structured to support professional collaboration.

One participant described changes not only in instruction, but also in assessment, as the focus is not simply on teaching, but on student learning.

I adjusted my assessments and my grading scale a little bit more. I’m not so strict in terms of putting all learners in one box and grading them equally. I have been much more versatile in that area . . . And finding how each student learns better and assessing that a little more closely than I did before. That is really thanks to the collaborative work that we’ve done at [this school] and to our department sharing everything that works for them.

A participant in the first five years of his career described the impact that collaboration had on his instructional practices:
In my classroom it’s been huge. When I first started teaching, I gave notes, I lectured, and gave them [students] an assignment. Through collaboration [I’ve found] an outlet to find out more as far as strategies and it’s helped me professionally which, hands down, has helped my kids’ learning. I think back over time and I feel like my kids probably learn more now than they did my first and second years because they weren’t analyzing anything, they weren’t synthesizing anything, I don’t know if they were even organizing anything. . .I’ve just learned so much about different strategies we use, different conversations I’ve had with people. I feel like collaboration has helped me grow in taking things to the next step.

The changes in instructional practice resulted from examination of student work and reflecting on the instruction that was presented to the students to generate that work.

I look at student work more critically. I’ve learned from collaborating with other people and talking with other people just to look at myself more critically. When I see something that is the same thing in [their] responses from that [lesson] that we did . . .when it’s the entire class, I’m just like, well, what did I do wrong because they did not get out of that what I wanted them to get out of it.

Collaboration shifted the focus of instruction to student learning for many teachers.

I’ve realized more and more the importance of student learning. I think before that [I] just wanted the kids to get through my class, for lack of a better term, I guess. But now, it’s not necessarily like that. I don’t give things [just] for grades anymore. I feel like through collaborating with other people I’ve realized that it’s not the grade that’s necessarily important. I don’t give an assignment so I can put 10 points out of 10 points in the grade book. I give an assignment so they learn—and I realized that through collaborating with other people. When I hear about their classrooms, I [think], that’s a pretty good assignment, and their kids are learning through that assignment. I mean, I’ve got to give grades, but the bottom line is I want them to learn.

Another veteran teacher shared, “it [collaboration] helped me realize that how I taught things for 15 years may not necessarily be the best way to do it.”

As participants described instructional changes that have developed as a result of professional collaboration, many described specific strategies that related to a content
area or a specific skill. This expansion of instructional repertoire was noted by participants. One said, “I am more in depth. I have more strategies. I probably have more professional relationships.”

As teachers worked together in collaborative groups, they developed common lessons, share ideas, reflect upon strategies that have been used in their classrooms, and discuss learning objectives. This structure provided accountability for all teachers. In schools without collaboration, the barriers created by isolation do not allow for reflection and refinement of practice, nor do they build collective responsibility for student learning. For one participant, this responsibility was described in terms of willingness to try innovative strategies in the classroom, as he related, “I think it’s more of a responsibility of accepting to do something different.”

Other participants felt responsible not only for student learning, as well as responsibility to contribute quality work to the collaboration group:

The work that we do is a reminder to me and to my colleagues that we are responsible for the learning that goes on in the classroom, and it is really, it is a good way and a good opportunity for us to share and really, it goes without saying, that when that’s on the table everyone’s held accountable for the learning in the classroom. That goes without saying, it’s implied. And so it really, as we continue to bring new strategies to each other and to share, it raises the bar each time that we come back together. And it’s implied and it’s inferred that each teacher takes these lessons, takes these strategies, takes these efforts, takes this professionalism and goes right back into the classroom and conducts themselves in that way not only professionally as a teacher and colleague, but as a teacher with his or her students in terms of challenging them each and every minute of the day in the classroom.

The same type of accountability to bring quality work to her colleagues in collaboration heightened one participant’s sense of responsibility for the learning of the students in her classroom:
Well, it makes you accountable. I think each person has a responsibility when you’re in collaborative work. It gets very old if you’re the only one or among a small group that’s, you know, doing what they’re supposed to be doing. And I think by having a large group setting and specifically one of the most important things is accountability. Accountability towards your supervisor, administrator, I think that’s where the strength comes in. But we all play a part and I know that I have to go back and use this in the classroom and that we are going to be held accountable for our work, so we all come to the table and usually with something to offer.

Instructional consistency was found in the data, cited as a way that helped participants establish meaningful relationships with their peers. These helped overcome barriers of isolation that participants had felt prior to collaboration. One said, “I think it just makes [teaching] much more consistent. Consistent between classes—it makes the teachers talk more and care more about each other.” Another participant shared this perspective, noting, “collaboration give you more personal relationships and you learn more about people that are part of your faculty. It’s been positive for students. You know, I think people are on the same page.”

Drago-Severson’s (2007b) collegial inquiry was evident in the study data, as participants noted the importance of discussing the perspectives of all members of the collaborative group:

I think relying on other teachers who are going through the same thing [is valuable]. I think the ability to discuss the same topic is valuable and it builds our professional skills. I think it helps to build common language between teachers so we know what’s important and we can have good conversations. I also think it’s great when we can all bring student work to the table and have a common protocol to look at it.

A veteran teaching participant noted that teachers, over time, can become accustomed to one way of doing things and have difficulty understanding that there are
multiple routes to achieve the same instructional goals, but that collaboration opens teachers up to differing perspectives:

I learn that everyone has a different way and different style of teaching. I feel like I have a way of doing something and I want people to do it my way, and it’s taken me time to learn that everybody’s journey is different but we’re going to the same destination and sometimes that’s a good thing.

**Impact on School Culture**

The reformation of the high school to include professional collaboration and an intense focus on student learning resulted in a change in the overall school culture in the participants’ school. As professional literature reports, as adults in a school shift their focus to the needs of students, the school environment becomes more welcoming and positive. This was supported through study data, which described the change in the school culture after participants began utilizing the PLC model. One of participant likened the change to role-reversal, in that the adults became a community of learners, much like students in the classroom, as colleagues come to support each other in their learning endeavors.

Collaboration puts the teachers in the role of a classroom of learners. And so if it’s my responsibility to bring something to the table then I need to do that. It sets a culture that we’re on a journey of learning too, that we don’t have it all figured out, but that’s our job. Our job is to figure it out together so that the kids can learn. It provides a very positive culture. People all of the time [are] saying, “Hey, I found this thing, here’s an article.” You can put articles in mailboxes … “Somebody said you were working on this, and I found something,” and so you get to know people that way. People know what you’re working on, what you’re doing.

Since professional collaboration became an operational norm in the high school, one participant felt that, “It unifies, it builds, it just makes us feel like a family and that we’re all in it together and it’s all for the best interests of the kids. It’s just developed a
positive culture for [our school].” Another described collegiality, consistency, and adult teaming consistent with PLC literature recommendations and the structure recommended by Drago-Severson (2007b):

It is positive and encouraging, it builds relationships. It makes you really feel like you’re part of a team and I think a lot of times we can get locked in the classroom and feel very alone. And so it really encourages this feeling of community and you know we talked about learning communities, but it actually comes from collaboration and knowing that you really are part of a team.

Drago-Severson (2007b) explained, “to build a school that is a true learning center—a place that nurtures adults and children’s learning and development—reflective practice and collegial inquiry need to become part of the fabric of that school’s culture” (p. 155). The data revealed that participants reported a similar culture of reflective practice and inquiry in their school. One compared the transformation that occurred since her first year as a teacher, when a model for professional collaboration did not exist in the school:

It’s changed it drastically. I can tell you my first year, which wasn’t that long ago, six years ago; I didn’t talk to anyone else. I hardly talked to the people in my department. I couldn’t tell you what they taught or how they taught—especially other teachers in other areas. We just did not communicate that way. So now I’ve learned things from foreign language, I’ve learned things from the history department. I can tell when I have my meetings as a facilitator what every department is doing and it’s just opened up doors for I think for every department. The data also supported that participants had a solid sense of everyone in the school moving towards a common goal. This sense of unity has established bonds across content-area disciplines and has helped teachers understand the true impact professional development can have when it is sustained, job-embedded and strategically implemented in the classroom at the level where it can impact student learning:

It [collaboration] gives us a cohesive sense of where we want to go. Teachers aren’t just saying ‘what direction should I take?’ Instead, we have a direction that
we’ve come together with . . it does give us a common goal and a common
direction that we can take and fine tune then in our department. We can take some
of the goals that we have as a district and work with those and focus in on what
we specifically need or want to go deeper with in our department.

Brookfield (1995) explains the power of reflective practice in professional
learning:

Without this habit (critical reflection), we run the continual risk of making poor
decisions and bad judgments. We take action on the basis of assumptions that are
unexamined and we believe unquestioningly that others are reading into our
actions the meanings that we intend (pp. 3-4).

Vertical alignment of teacher practice and the opportunity to deeply understand the power
of professional development was in the data as an important part of this school’s PLC
structure:

I see great growth in our staff in professional development since we implemented
our collaboration every other week. I believe we began that, gosh, four or five
years ago. And I think it’s made our staff grow stronger. I think they realize the
value of professional development and where it can take them—to directly impact
the kids. So, positive is the best thing that I can say. I think it’s been great for our
staff.

The feeling of community that existed at the level of school culture in this high
school eliminated the disjointed, isolated work environment that participants recalled
working in prior to participation in collaboration. While the PLC structure was initially
doubted by some participants, it came to be embraced as a positive part of the high
school’s culture:

It brings community to the school so you don’t have just everybody working on
their own. It provides continuity. I think it initially may have brought some
hesitancy, but I think everybody’s past that. Any time you have change there’s
hesitancy.
Prior to collaboration, “we used to have PD, [and] stuff would get done, [and then we’d] put it away. We’d forget what PD was about. With collaboration and the same environment, we have created an environment around here where it’s constantly being talked about. We’re reviewing it and putting it into action all the time. So it’s easy to remember what you did for the last 180 days.” This sustained focus on common goals has caused stability in the program of professional development for teachers. It also functioned to lessen the hesitancy some teachers felt regarding change.
Chapter 7

Focus on Continuous Improvement

*Instructional Effectiveness*

A key part of the PLC structure lies in teaching and learning. Eaker, DuFour, and DuFour (2002) say that teachers must feel a sense of personal accomplishment to establish and maintain changes in instructional practices. They say that when schools are functioning effectively as PLCs, teams are working on succinct learning goals, evaluating progress, and tracking individual student learning. Through the steps in the process, “individual teachers expanded their repertoire of instructional strategies with the help of their colleagues” (p. 52). This achievement of team goals was evident in the study data, as was noted a change in instructional practices by study participants.

One participant stated that collaboration had improved his instructional effectiveness and helped him overcome the barriers of isolation in his quest to help his students:

> Starting off as a traditional teacher and being an individual teacher [is how I thought of myself]. That was my classroom. I didn’t want anybody in it. The way I’m doing it is right. Collaboration came around and I learned I can use my time better, fulfill this requirement of using the student time very wisely, and I’m more of a classroom that is now more open, more inviting, and has made me a much better teacher than what I used to be. I’m very thankful I don’t teach the way I used to 10 years ago.

Professional collaboration that participants perceived as structured had impact on their use of new instructional strategies. The use of new strategies grew out of the participants’ desire to understand what students needed and from the participants’ desire to meet these needs:
Well, it’s almost like an experiment. When you first start something that’s so new and you go and teach it in your class and you figure out what works and what doesn’t, you need feedback. I need to know this is working, this isn’t working, and when it’s a one and done kind of think, I feel like I’m kind of left hung up.

As teachers shared, their new understanding had the leverage to change veteran participants’ beliefs about effective instruction. One veteran teaching participant reported, “It [collaboration] helps me realize that how I taught things for fifteen years may not necessarily be the best way to do it. It makes me keep an open mind.”

**Role of Data and Research**

Research plays a large role in helping teachers understand instructional practices that are proven to impact student learning. While one-shot professional development opportunities may help teachers become aware of research-based best practices, without time to discuss, develop, and implement instructional processes in their classrooms related to these best practices, professional development lacks the leverage needed to truly affect student learning. In this high school, teachers related that their work was driven by research-based best practices and local data collection.

One participant cited a school-wide study of empirical data related to instruction that impacted student learning, describing, “Well in our school [the principal has] asked us to research reading Marzano and other strategies. And we’ll look at best practice, what studies have shown us work well with the students and then try to implement that within our classroom. So I can just focus on the research of whether what we’ve tried is working. [It’s] research within research.”

Another participant also described this building-wide use of research as having driven the work of collaboration.
From my experiences, the list that’s usually given to us to choose from is already based on student needs. Someone has done the research. Someone has looked into what our needs are. A lot of it is given from proven strategies like Marzano or people who have really done their research on their own much better than me to pull from. I know what, I sort of know what my kids need and I can pull from it, but it’s almost better to have somewhere to go from that. Because a lot of times when I come myself looking at my students, well I know what they’re lacking but it’s hard to know what to do to get them there, and so it’s nice to have a picking then to pull from. Like a buffet to choose. I want to try this or I want to try that.

In the participants’ high school, research-based best practices are shared by administration, who have reviewed student achievement data with faculty members. Administrators have also narrowed the list of potential instructional processes or strategies that teachers may use in their collaborative work. The data showed that teachers view this process as one with credibility:

We mainly stick to strategies that are research based, that have been proven. It’s - I feel like we’re not ever – even though some of our goals and stuff come from above—I don’t believe anybody just made them up. I mean it’s not just like one administrator just decided to sit down and say okay everybody’s going to do this. It’s more things from texts or from research that have worked in lots of schools and so therefore it’s worth us trying. It’s not like it just worked for one teacher and so now we’re all going to try to use it. And I know we’ve also done research in like looking up minorities or free and reduced lunch, I don’t know if we have this year but we have in the past, looked at that and how to reach those kids.

Eaker, DuFour, and DuFour (2002) note that student data is important to help teachers form goals, but that there is a difference between having data and having information. For data to be effective, they say, “teachers will be able to use that data to assess their effectiveness or improve their practice” (p. 46). One participant described data analysis in this high school, and how student performance data helped drive what would be done in collaboration, saying, “Data drives everything. So if you, if you don’t have data to start with, if we don’t know where we started and where we’re going then it’s sort of just like a research project. So data definitely is, it’s key.”
As teachers participated in collaboration related to instructional best practices, their instructional sophistication grew. A participant noted “it gives us a background in which to draw from. I mean any of the strategies we’ve looked at we’ve read about it and researched it and then we’ve kind of changed it to our own personality or our own teaching style, but it’s on the basis of what works.” This school-wide focus on research-based best practices impacted student learning, according to one participant:

I feel like everything that we’ve done has impacted student learning in a positive way, but as a group I wouldn’t say that we look at research and say hey these are things we should work on. Now as a school I would say that research has played a huge role in things we work on. I feel like as a school everything that we look at is backed up by data, is backed up by research, so yeah I feel– and I think as a school we see [the benefits of] that research.

As teachers come to build shared understanding of the research base for instructional practices, the role of research appears to play a larger part in their day-to-day work. The importance of understanding the reason for implementing certain instructional strategies built a common instructional language amongst teachers in the building. The data indicated that teachers shared an understanding of educational research and its application in the classroom:

Well if you don’t know what you’re talking about– research is critical. So if we’re researching a Marzano strategy or ACT reading, if you don’t know what you’re doing, if you don’t know what ACT reading looks like, then you have to research it. So a lot of our beginning phases of our action research cycle involve just that, sitting down, looking at the problem, and reading. So I think it’s critical. Otherwise you don’t have a good common language or basis to grow.

As participants implemented research-based strategies, there was a belief that the strategies that had been successful in other schools had the ability to positively impact the learning of their students. One teacher explained how implementing research-based best helped drive the collaborative reflection in her department:
Our research we use is [research-based.] Not saying you can’t come up with something [on our own], but you ought to start with something that has been proven to work. So we’ve done a lot of Marzano study over the years. [Our job is] just to make sure that what we’re trying has a history of success somewhere else. When you do, if it’s not working, [we understand] it worked everywhere else, so [we consider] what are we not doing right, what don’t we understand about this. That was such a silver bullet. We need to look at it together [and decide what to do next.]

As instructional research became the basis for the work of collaborative groups at this high school, teachers also became more critical of the types of strategies that they chose to implement in their efforts to achieve student learning objectives and departmental improvement goals:

Research plays a very important role. As we visit with each other and as we look at the end of each year, we look at statistically, okay, how have we done, what have we tried, how did it work? And it is only in stepping back to evaluate and to look and see how we’ve done can we move forward. This worked, this didn’t work, don’t make the same mistakes again, and in terms of when we’re trying something new we look at research that has been done and if something has worked, is proven, it certainly is something that we will want to try on our new students, because there are new teaching techniques and theories coming out constantly and some better than others of course. And so there are certainly different ones that we will want to take a look at and look at the research really well to see who’s used the research, if it has been high school age, grade school, whatever, college, and see if it’s applicable to us and if it’s something we want to try, and then we go from there.

Eaker, DuFour, and DuFour (2002) maintain that the work done in PLC schools should focus on results, not intentions. They say that PLC schools undergo a cultural shift where research and results are internally validated and where teachers “collaborate on how the approaches affect student learning” (p. 22). While research-based best practices are used to reform the work being done in participants’ classrooms, the data showed that teachers in this high school share a singular goal for this work. One participant reported, “Well, the needs of students are at the forefront. [Our work] starts
stemming from the needs of students and how can we accommodate those? That is where our collaboration in our professional development is geared from. It’s more the needs of the students than the needs of the teachers.” And, as teachers engaged in this focused professional development, they were asked to synthesize instructional ideas from research-based strategies and best practices. Participants believed this practice helped them become more reflective of their own learning:

I will say I’m more conscientious about my professional development now. I think in the past I went off my own gut and . . . maybe some of the PD things that we had but they weren’t real focused or consistent in a theme . . . I could pick and choose little bits. Now it’s really more focused.

**Impact on Teacher Effectiveness**

Reeves (2005) shares that “teaching has traditionally been a solitary enterprise, with idiosyncratic judgment and personal preference trumps external demands for consistency, fairness, and effectiveness” (pp. 47-48). Reeves (2005) states that schools must structure adult learning in a manner that “[recognizes] that organizational culture and structure will influence behavior . . . [with leaders balancing] the desire for professional autonomy with the fundamental principles and values that drive collaboration and mutual accountability” for instruction to be effective in leveraging student learning (p. 48).

To determine if this school’s collaborative structure affected student learning, teacher participants were asked, “How do you think collaboration impacts your effectiveness as a teacher?” Participants described the impact of collaboration on their effectiveness as being related to a renewed sense of energy that came with working with colleagues, overcoming feelings of isolation. They also cited a reliance on student
learning data to measure the performance of their students, not just a reliance on their beliefs about student learning, as they may have used in the past to measure their effectiveness. One participant described how she gained perspective regarding student learning:

I think it just gets me out of my routine. It helps me change up my methods so that I can address the different types of learners, giving me other strategies to use. I think the biggest thing is it keeps me from being set in my ways and keeps me trying new things and working and realizing that, it’s almost like humility, it’s almost a constant—are you doing everything you’re supposed to be doing, are we trying everything I can to reach these kids, instead of getting negative [and thinking] it’s their fault, it’s more of a back on me—what can I do, what can I try, what are some new ideas to put in there?

This reflective perspective on instructional design was cited by another participant as a change in her measurement of instructional effectiveness:

It (collaboration) allows me to reflect on lessons as well as my design. It allows me to look at particularly how students are doing. It gives us information or data on how they’ve done immediately.

As a measure of instructional effectiveness, participants discussed the role of staying aligned with other teachers in their content areas. Instructional pacing was another way teachers evaluated their effectiveness in the classroom. One participant said, “we discuss benchmarks, and that’s a tool for measuring if what we have taught the students is meeting what the district wants . . . Our discussion in general allows me to know where I am with my students is in line where others are grade-wise.”

Instructional effectiveness was also measured by teacher participants in terms of their reflection on student misunderstandings and through formative measures that helped them assess student knowledge. One teacher shared that collaboration helped her discuss with her peers “a misconception a student had and then realizing that that’s the same one
some of my students could have” as a way that her instruction has gained effectiveness as a result of participation in professional collaboration. Another described a shift in his reflection of student learning that has increased his instructional effectiveness:

Well before if I were to teach something it was either ‘they got it’ or ‘they didn’t’ and I moved on. Now, it’s ‘okay, they got it’ or ‘they didn’t, why?’ Why did they not get this? Why are they missing this? I go back and I reflect on what can I teach differently? How can I reach this group of students? It’s not one and done anymore. It’s one and then go back and figure it out.

Collaboration changed the way two of the participants thought about their instructional effectiveness. This shift in the perspective of veteran teachers was a key contributor to a change in climate and culture in this secondary school, where long-time teachers often wielded much influence over the day-to-day operations and the prevailing attitudes of other teachers. One reflected about how effective he thought he was in the classroom after participating in collegial conversations regarding instruction during collaboration meetings:

I’d like to think (I’m) 100% (effective), but to be honest, (I’m) probably 75% (effective). There’s still room for improvement and as I have talked (with the principal) before, it’s some things that I’ve done this year that look good, but [they’re] probably some things I should have been doing all along. And so now that I have the basis down that gives me room to start building off of that and raising that level of what I can see in students and what their needs are and to work with that even more.

A 34-year teaching veteran confirmed this type of impact on her view of her instructional effectiveness, saying “(Collaboration has) probably made me less myopic. I have always worked very hard to be a good teacher and I think sometimes when you’re working so hard on your own you just assume that your product is better than everyone
else’s. And collaboration makes you realize, ooh, I really like what she did with that essay protocol better than mine. I’ll see if she’ll share.”

Another participant shared a similar view regarding the impact of collaboration on instructional effectiveness:

The work that we do is a reminder to me and to my colleagues that we are responsible for the learning that goes on in the classroom, and it is really a good way and a good opportunity for us to share and really, it goes without saying, that when that’s on the table everyone’s held accountable for the learning in the classroom. That goes without saying, it’s implied. And so, as we continue to bring new strategies to each other and to share, it raises the bar each time that we come back together. And it’s implied—it’s inferred—that each teacher takes these lessons, takes these strategies, takes these efforts, takes this professionalism and goes right back into the classroom and conducts themselves in that way not only professionally as a teacher and colleague, but as a teacher with his or her students in terms of challenging them each and every minute of the day in the classroom.

Participants also reported a shift in the way grades were used to measure instructional effectiveness. They reported this change as a result of the work that was done in collaboration with other colleagues, and their school’s focus on utilizing formative assessment strategies to measure student learning. Stiggins (2005) says that in education, “we assess for two reasons: (1) to gather evidence of student achievement to inform instructional decisions and (2) to motivate learning” (p. 65). In this school, this PLC tenant was demonstrated in the data as central to collaborative work.

One teacher reported, “I definitely don’t measure it (student learning) on grades, because that’s not your ultimate goal. My ultimate goal is when you see in the eyes of the students that they get it now, that’s my ultimate goal.” Stiggins (2005) reports that effective assessment practices are a key part of instructional effectiveness, which is mirrored by the beliefs of participants in this study. One cited work done in collaboration as the reason he changed his perspective on student grades as a means of measuring
learning, saying “I think I look at more than just a test score. I think I used to just look at percentages portion, the tests, and leave it at that. Through collaboration I’ve learned to focus more on the formative side to realize that it’s not just the end grade, but the journey along the way that we can really see where progress is being made. So it’s, I’ve really actually shifted my philosophy on a lot of things regarding homework and practices within the classroom that have changed because of collaboration, for the positive I think.”

Increases in perceptions of instructional effectiveness occurred, according to participants, because of interactions between teachers. These collegial conversations helped teachers reflect on their instruction and gave them additional ideas for effective instruction. It also increased their self-efficacy due to perceptions of higher effectiveness and higher levels of student learning. One participant explained how the work of individual teachers benefitted the whole collaborative group:

A couple of colleagues have done the National Board certification and probably one of the things that I’ve learned the most at the very beginning of it is she kept asking why. Why are you doing that? But, ultimately, what she was trying to do was get me to think things through and show me a way that students can learn better.

Another teacher explained the impact of the sharing of new instructional ideas on her instructional effectiveness:

It increases my effectiveness because of the introduction to new way of thinking and new ideas for how kids learn, and just strategies that we can add to our toolbox. I think it also allows us to see that we can have our lesson planned out but that we’re not stuck to that lesson when it’s not working. So I think I’ve learned from formative assessment too. The more you do that the more you can immediately gauge the effectiveness and then make those changes.
Impact on Teachers’ Perceptions of Level of Skill

Teacher participants were asked to describe the impact, if any, collaboration had on their skills as teachers. This prompt was designed to help measure the impact of collaboration on teacher self-efficacy, and served to provide additional insight into not only efficacy-related issues, but also into the evolution of the school culture as collaboration has become an institutional expectation for professional learning by teachers in the school.

One participant described the way collaboration has impacted his skill as a teacher in that “it provides some confidence that there are methods out there that I can build off of and take and glean what I feel is appropriate for my teaching style.” This sharing of ideas was also viewed by other participants as having increased their own instructional skill. One explained, “[It builds] creativity. It opens windows of opportunity to explore different avenues to increase your knowledge,” adding that “just really having the support and backing of other people, helping you through a situation that you don’t feel as comfortable with” was a benefit of collaboration.

Another participant shared her perception of her growth as a teacher, prompted by her work in collaboration, saying, “I think I’ve grown quite a bit as a teacher. I think I could say that if I didn’t have professional development I’d be out on my own a lot and I don’t know if I’d be going in the best direction to impact my students. So, with our professional development in our building I know we are researching best practices. I know that we are doing what’s right for kids.”
One participant who has 25 years of teaching experience in this high school shared her belief that collaboration had been one of the most positive professional experiences she had experienced in her career:

If I had a chance to do it all over again, would I? Definitely. It’s been one of the most positive and rewarding experiences in the career basically. Not only from the perspective of the teacher but also through the eyes of the students and I would hope through the eyes of the administration and the downtown people . . . I can’t imagine not doing it honestly. I cannot imagine not doing collaboration. It’s been one of the most positive experiences in the 25 years that I’ve been here. It opens the door to many wonderful things.

PLC literature points to cultural changes in schools through a functioning collaborative environment. Participants in this school also noted that collaboration had affected the quality of teaching and learning occurring throughout the school:

I think that there is less disparity between the quality of teachers. I think there is a greater sense of accountability in other words. Prior to three or four years ago when we became more collaborative as a school, and this is a terrible thing to say, but I do believe it’s the truth, I think within departments you had a sense of who the stronger teachers were and who the weaker teachers were and it seemed like that never changed. And now that we’re more collaborative, I think we still have teachers who are weaker, but I think they are more reflective about their own shortcomings and they are more willing to go to other people in the department for help. But I think related to that, I think the rest of us, we feel like we’re stronger educators, perhaps are more cognizant of those who are weaker and we will then go to them and tactfully offer our assistance. I don’t know if that would have existed prior to being a more collaborative school.

Collaborative Lesson Design

As participants in this school engaged in collaboration, one of the work products that emerged was common lesson planning. The natural offshoot of planning was pacing, which was evident in the data as being a change in teacher practice in this school.
Participants indicated that they felt responsibility for the learning of their students, which evolved over time into a sense of responsibility for the learning of their colleagues.

One participant described a sense of responsibility for all students in the school, since the work he was doing with his colleagues in collaboration meant that his ideas and instructional designs were impacting more than just the students in his classroom. He said, “When I feel like a teacher is using my ideas in their class I feel responsible that they, I mean I feel a little more ownership of those students even though I don’t know them personally.” Another said the work of collaboration gave teachers the feeling that student learning was “extremely important,” furthering describing student learning as “the focus of the school,” where collaboration “lets me know what my responsibilities are as a teacher and it has helped me to know that I’m meeting, or at least I feel that as though I am meeting those responsibilities that are asked of me as a teacher at the school.”

While accountability and responsibility can sometimes be equated with pressure-intensive situations, teacher participants did not relate their feelings of responsibility for student learning as adding pressure to their work environment. Instead, one shared that he felt “that feeling of integrity that I’ve got this job that I’m doing and that if we’re discussing this, then it must matter, that it has some importance.” Another said the professional impact collaboration and its focus on student learning had improved his practice:

I come in with a better lesson plan than I ever have because [of] the feedback from other teachers. They tell me what works. They have proven what has worked. So why not go out and give it a try in your own classroom? . . .

Collaboration is able to allow you to use that time wisely throughout the time period for student learning. There hardly is any down time any more for students
because of collaboration, because of all the different strategies and techniques used to help the kids.

Examination of Student Work

Developing, implementing, and reflecting on instruction designed during professional collaboration have affected the way participants view their responsibility in the classroom. This shift in perspective is valuable in any school reform initiative, and the collaborative structure of the PLC promotes this type of sharing. One participant related his shift in perspective, noting that a videotaped lesson that was shared with his departmental colleagues resulted in changed thinking:

I measure myself now more by what the kids say they’ve learned versus what I know I throw out there. So it’s kind of like what happens on the other side of the desk and sometimes I’ll look at assignments and I’ll think well, they did exactly what I asked them to do and that’s not what I was thinking I was telling them, so you can’t blame them, you have to go back and figure out. That’s why that videotape was really good cause you can actually go back and watch out and go, oh, that’s what I told them to do. Okay, so here’s what I was thinking I was telling you, how do we make this what you spent all the time on, that’s what I thought I was telling you? Amazing.

Accountability is another aspect of professional collaboration that participants cited as bringing value to their work in the classroom. Drago-Severson (2007b) supports accountability as a structure that promotes adult development. Participants in this study reported that accountability to their peers and their students played a role in creating an environment of productivity that impacted student learning:

The needs of the students are at the forefront. It starts stemming from “what are the needs of the students,” and how can we accommodate those. That is where our collaboration in our professional development is geared from. It’s more the needs of the students than the needs of the teachers.
Another teacher underscored the role of accountability, saying “It [collaboration] makes you accountable. I think person has a responsibility when you’re in collaborative work. “

*Responsibility for Student Learning*

As teachers work together in collaborative groups towards their common departmental goals, they develop common lessons, share ideas, reflect upon strategies that have been used in their classrooms, and discuss learning objectives. This structure provides accountability for all teachers to be accountable for student learning. This responsibility to gauge the level of understanding of the students in the classroom and assess their learning may always be present to some extent in every classroom, but in schools that do not have structured collaboration, the barriers created by isolation do not allow for reflection and refinement of practice, nor do they build collective responsibility for student learning. For one teacher, this responsibility was described in terms of willingness to try innovative strategies in the classroom, as he related, “I think it’s more of a responsibility of accepting to do something different.”

Other participants felt responsible not only for student learning, but also responsibility to contribute quality work to the collaboration group:

The work that we do is a reminder to me and to my colleagues that we are responsible for the learning that goes on in the classroom, and it is really, it is a good way and a good opportunity for us to share and really, it goes without saying, that when that’s on the table everyone’s held accountable for the learning in the classroom. That goes without saying, it’s implied. And so it really, as we continue to bring new strategies to each other and to share, it raises the bar each time that we come back together. And it’s implied and it’s inferred that each teacher takes these lessons, takes these strategies, takes these efforts, takes this professionalism and goes right back into the classroom and conducts themselves in that way not only professionally as a teacher and colleague, but as a teacher
with his or her students in terms of challenging them each and every minute of the day in the classroom.

Another participant described the same type of accountability to bring quality work to her colleagues in collaboration, which, in turn, heightened the sense of responsibility for the learning of the students in the classroom:

Well, it makes you accountable. I think each person has a responsibility when you’re in collaborative work. It gets very old if you’re the only one or among a small group that’s, you know, doing what they’re supposed to be doing. And I think by having a large group setting and specifically one of the most important things is accountability. Accountability towards your supervisor, administrator, I think that’s where the strength comes in. But we all play a part and I know that I have to go back and use this in the classroom and that we are going to be held accountable for our work, so we all come to the table and usually with something to offer.

This sense of responsibility was shared by teams of teachers, as a participant related that the learning of all students in the school is a personal responsibility, going beyond the walls of one teacher’s classroom, explaining, “I guess when a teacher is using my ideas in their class I feel responsible—feel a little more ownership—of those students even though I don’t know them personally.”

Drago-Severson (2007b) says that this type of teaming enables adults to

- Question their own and other people’s philosophies of teaching, leadership, and learning;
- Implement the school’s core values in the curriculum and school context;
- Reflect on the meaning of their school’s mission; and
- Engage in shared decision making (p. 94).

These guidelines for adult learning were present in the participants’ school. One participant explained that all teachers are responsible for promoting the learning of the
group, stating, “We come and we share different ideas and techniques that we have tried in the classroom and we’ll share with each other how they worked, what we could do to implement them [differently]. And, we have all shared.”

As participants analyzed student learning and measured their effectiveness, it became evident in the data that the collaborative work being done in the school to expand instructional practices had a positive impact on the way teachers view their responsibility for student learning. One participant explained, “I think [the value has been in] targeting kids where they learn, how they learn. I think as a school we’ve done a good job of doing that with different methods and a variety of those methods.”

Another participant concurred, sharing how his view of his responsibility for student learning has changed, “I think the last couple of years I’ve realized more and more the importance of student learning. I think before that, I don’t know, maybe I just wanted the kids to get through my class, for lack of a better term.”

Participants also reported that their responsibility for student learning increased through the use of artifacts and data. These pieces of accountability provided teachers with material to discuss and also provided a way to help them measure the effectiveness of their instructional practices on their students’ understanding of the learning objective. One participant explained, “By having to collect data and having to show that data I feel like we are responsible for what we are teaching.”

*Impact on Teacher Self-Efficacy*

As teachers participated in sustained professional collaboration, the number of trusting collegial relationships between teachers in this school grew. Participants said their willingness to critically reflect upon instructional practices grew, as did their use of
research-based instructional strategies. All of these things have led to teachers growing more confident in their abilities to affect student learning in their classrooms.

As confidence in this ability has grown, it follows that teachers’ self-efficacy has also grown. Teacher participants in this study were asked a series of questions related to self-efficacy. These were designed to help understand how teachers believed collaboration had affected their instruction, their instructional effectiveness, changes in the measures of instructional effectiveness teachers use to evaluate student learning, and their beliefs about the impact of professional collaboration on their instructional skill.

The following section reports the findings of this study regarding teacher self-efficacy.

Effect on Instructional Practices

Teachers were asked, “How does collaboration affect your instruction?” Responses to this prompt demonstrated a growth in the number of collegial relationships teachers have built during the time they have participated in collaboration. Data also showed increased focus participants have gained for their students’ learning and increased feelings of professional accountability.

As participants described their relationships with colleagues, one said, “I think it’s (my instruction) probably closer to my colleagues’ in the fact that I can go to them and feel free to ask them questions about what they’re doing and how I can incorporate that into my room.” This open, sharing environment is part of what has created a climate of instructional consistency in this high school. One participant made the connection between collaboration and consistency, saying:

It’s extremely important. It is the focus of the school. I think it was [because of the fact] that we have collaboration. I believe it’s trying to set the tone that we are seeing. It lets me know what my responsibilities are as a teacher and it has helped
me to know that I’m meeting, or at least I feel as though I am meeting those responsibilities that are asked of me as a teacher at the school.

As teachers participated in professional collaboration, they have gained an increased sense of teamwork, which has helped them be more open and reflective of the work that is done in the classroom. This reflection, “gave me a chance to think about how I teach and the order in which I teach things, and just maybe opened my mind to there’s other ways it can be done,” according to one of the participants. Another described that collaboration “expects me to be more reflective externally and admit that this didn’t work out well. And so I think it’s more of an external reflection.” This type of practice has broken down barriers of isolation and helped create positive interdependence among adults in the school. One teacher described the sense of teamwork:

I just think it’s very beneficial as a team and to be part of a team than to be coming into something where you’re all individuals and you don’t have that assistance or you don’t feel comfortable with that kind of situation. I think it’s one of the best things that has happened throughout the years that I’ve been teaching and it has given us time to do that within our day and not just on our own time.

Collaboration has lessened participants’ sense of isolation and deepened student learning in the school. One participant described the impact of collaboration on professional relationships at this high school:

I’d have to say that it brings us closer. I mean it brings us as a unified group. We’re not an island by ourselves but we’re able to come together and really look at what not only our group is doing but then go vertically and look at what’s happening in ninth (grade) through twelfth (grade), and that will help us scaffold really to help take – I keep saying it, but take, to get those students to go deeper. The accountability brought to professional practice is another piece of teacher self-efficacy that has changed through the implementation of a model of professional collaboration. Teachers gained a sense that their professional practice is more effective as a result of their work with other teachers, which made them also feel that students
were learning at higher levels than they were when teachers worked in isolation. One said, “I think it (collaboration) makes you a better teacher. You get better ideas . . . we actually get teaching ideas, strategies from discussing practices of different ways of teaching.” Another shared her heightened sense of accountability:

Well it keeps you accountable. I don’t want to be the only one there who’s in my own little world doing it my way is the only way. I want to know, I want to be up there with everyone else knowing that what I’m doing is for my students and if I refuse to listen to anyone else it’s a very selfish thing. So by collaborating I’m getting ideas from everyone else not only to better myself, but to become a better teacher for my students. So it’s a way to keep me accountable.

These feelings demonstrate a clear increase in teacher self-efficacy as a result of participation in professional collaboration. The data described how participants felt accountable for the work being done in the classroom with students and for the learning of colleagues. These beliefs resulted in an overall shift in the climate of the school to one that focused on student learning, as opposed to a focus only on teaching.
Chapter 8

Summary and Conclusions

The purpose of this study was to examine the affect of a meaningful, sustained professional development model of collaboration on teacher effectiveness and teachers’ experiences in this collaboration model, seeking to gain understanding of the nature of collaborative professional development and its effect on teacher efficacy.

The central question for this study was, “What is the impact of instructional collaboration on teachers’ instructional practices and on teacher efficacy?” Specific research questions that guided this case study included:

1. What types of instructional practice have been changed as a result of teacher collaboration?
2. What types of experiences do secondary teachers have with collaboration as a model for professional development?
3. Has teacher efficacy increased as a result of instructional collaboration?
4. Does instructional collaboration prompt teachers to evaluate their instructional practices and seek new approaches to instruction?
5. What has been the value of instructional collaboration for teachers?
6. Does collaboration align with professional development models from the National Staff Development Council?

For this study, 20 teachers from one large, suburban Midwestern high school were interviewed. All participants were contacted by the researcher, given a detailed account of the purpose of the study, and voluntarily confirmed their
participation in this research. Interview questions were designed to generate responses from the teachers that would provide their perceptions and additional insights regarding the central research question and the six sub-questions that frame this study. All participants were interviewed during an agreed-upon time in a neutral location. Interviews lasted between 45 minutes and 1 hour, 30 minutes each.

All participants completed informed consent prior to their personal interviews and were given copies of informed consent for their personal records. Demographic questions were answered at the beginning of each interview to help the researcher gain an understanding of the participants’ levels of education, number of years of teaching experiences, and content-area expertise. Participants were assigned code numbers and no names or other identifying information was used in reporting the responses of participants in this study. Respondents also had the opportunity to receive copies of the transcribed interviews to review prior to the writing of the results and findings sections of this study. All participants were knowledgeable about collaboration and had participated in collaboration from 1 to 4 years. They were also candid and honest in sharing their thoughts and feelings for the purposes of this study.

This study was conducted to gain insight into collaboration as a method of sustained, meaningful professional development for educators in secondary schools, where the barriers of isolation are strong and far-reaching. While there is much professional literature regarding the role of collaboration in professional learning communities, collaboration is not a mode of professional development
that is readily found in secondary schools, despite urging from professional
organizations and recommendations from national and international educational
studies and reports. This study sought to examine the role of collaboration in the
four years this model of professional development has been employed in one large
high school, so that other secondary schools might gain information that will help
them in their implementation of similar professional development models.

The themes of focus on learning, structure, accountability, leadership and
efficacy surfaced upon examination of the professional literature, and were further
used to help organize data from participants’ interview transcripts.

Focus on Learning

Professional development for teachers is theoretically responsible for all of the
instructional growth and development of instructional practices in a school. While
professional development has been cited in reports and legislation since *A Nation at Risk*
in 1983, it would be easy to believe that professional development is keeping pace with
the increasing challenges teachers face and is helping them gain skill in meeting the
needs of all students. Sadly, as Tyack and Cuban (1995) say in *Tinkering toward Utopia*
point out, little has changed in public education in the last century, including professional
development for teachers, which is the variable with the greatest individual impact on
student achievement in schools.

Opportunities for professional development are numerous, yet teachers often are
limited to the topics chosen by an administrator or district level official. Most of the time
these pre-selected professional development topics have more to do with a new program
being implemented or a district initiative than they have to do with the instructional needs
of students or the process needs of teachers. These types of disjointed opportunities strictly limit the implementation of new knowledge in classroom instruction and maintain the barriers of professional isolation that teachers have long experienced.

Educational researcher Miles says that these types of professional development offerings are shallow and build teacher resentment for professional learning. Since they are so frustrating, teachers come to resist the time allotted to professional development and teacher isolation is reinforced. DuFour and Eaker (1998) agree that professional development is not meeting the needs of teachers, and often lacks any basis in solid research. With this level of inconsistency in professional development, many school leaders are struggling to find a means to address the achievement gap that exists between groups of students.

While many professional development conferences and workshops are marketed with numerous promises related to increasing student achievement and helping teachers in their efforts to manage the diverse needs of students, there is little hope of this occurring when teachers return to their schools without plans for sustained study and implementation accountability. In fact, in many districts, teachers are accountable only to tell other teachers or a professional development committee about their learning, without any accountability to actively implement new knowledge in the classroom.

The achievement gap in schools can be defined along lines drawn through the ranks of race and socioeconomics. Sadly, research by the Ed Trust (2010) shows that low achieving students who need effective teaching the most are also the students who are most likely to be assigned to ineffective teachers. The realities of the achievement gap
necessitate that teacher professional development strategies be based upon student outcomes, not educator intentions.

Because effective teachers are so important (EdTrust has shown that effective teachers are responsible for student achievement that is 10 points higher on the math NAEP than scores of students in the classes of ineffective teachers) principals must ensure that teachers understand their power in adding value to student learning outcomes. Principals must also honestly appraise teachers and give them critical feedback that will spur their growth.

Some type of achievement gap exists in nearly every school. EdTrust says that average students in top quartile teacher’s classroom demonstrate a 10-point gain in math understanding over the course of a year, while an average student in a bottom quartile teacher’s classroom demonstrates a 10-point decline in math proficiency during the same period of time. While we know it to be true that low achieving students gain more in the classrooms of effective teachers than low achieving students in the classrooms of ineffective teachers, little is being done to address this teaching gap that is contributing to disparate student performance in schools. Professional collaboration establishes a means to develop in teachers a deeper understanding of pedagogical concepts and promotes the development of teacher leadership, both of which help shift school culture to a focus on student learning.

School leaders must be provided professional development as well. With their supervision of teachers playing such a critical part in student achievement outcomes, principals must have a solid understanding of effective instruction and how to assist teachers in the quest to grow more effective in leveraging student learning.
Models of professional learning that build teacher collaboration are useful in closing the achievement gap as they build structures that break down isolation and encourage teachers to work together, rather than competitively, toward commonly established goals for student learning. Pfeffer and Sutton (1999) author of the business book *The Knowing-Doing Gap*, dismisses internal competition as unhealthy for an organization. He says that when people on the inside of an organization are fighting against each other, they are not focusing on fighting the external forces that are stifling progress. This is true in schools, especially in schools where teachers work in isolation and do not engage in the practice of sharing instructional practices, examining student work products, and engaging in collegial reflection. In secondary schools especially, competition between teachers can promote the long-established barriers that maintain isolation. Collaboration is a way to validate individual practices while encouraging collegial focus on student learning goals.

In his book, *The World is Flat*, Friedman (2007) makes the strong case that our children are going to grow up to a world of global competition for jobs and resources. For the United States to remain among the world’s elite nations, education cannot be considered a luxury. Quality education is a necessity and high quality professional development for teachers is a means for assisting underserved children who are part of the current academic achievement gap. Anthony Muhammad and Kati Haycock concur that educators must be part of a movement that eliminates educational systems that don’t require very much from most of their students and expects much less of some types of students than others. Leaders must be action-oriented and nurture a climate of creativity and experimentation in the classroom, all supported by quality professional development.
They must demonstrate an environment where, as Pfeffer and Sutton point out, the actions of individuals (and evidence of those actions) are honored before words.

Morton (1993) found that in schools with collaboration, both student achievement and student behavior improved. This finding, coupled with the fact that collaborative relationships amongst teachers remove the insular barriers that are common to the professional, bring light to the reality that effective professional collaboration amongst teachers improves student learning. In a this high school, the work of collaborative groups focused squarely on student learning, as teachers noted that they did not use their time for operational business items, focusing their time and attention to student learning and the departmental goals that they had established. Hollins (2006) says that when teachers “collectively assume responsibility for making sure all students learn” positive results occur on a school-wide level (p. 48).

The work of teachers in this high school was driven by their common focus on student learning, for which they felt ownership. This ownership went beyond the students in their own classrooms, with many teachers referring to a sense of responsibility for all students’ learning, since their instructional ideas and techniques were shared with and implemented by their colleagues, having then an impact on the learning of other students in the school. DuFour (2005) says that this is the overarching goal of collaborative work in professional learning communities, stating:

The professional learning community model flows from the assumption that the core mission of formal education is not simply to ensure that students are taught but to ensure that they learn. This simple shift—from a focus on teaching to a focus on learning—has profound implications for schools (p. 32).

Through examination of the teacher interview transcripts, it is clear that teachers were focused clearly on student learning outcomes and on designing instruction that met the
need of their students. Without exception, teachers pointed to a focus on learning outcomes as a measurement of their instructional effectiveness, understanding that, while instructional design and delivery are extremely important pieces of their professional practice, the true measure of their work lie in student learning.

Another point that should be noted from this research lies in the area of teacher learning. While a focus on student learning is critical, as it establishes a common goal for the work of teachers in a school, professional development of this collaborative nature has a direct, positive impact on adult learning. Teachers in this study commented many times that this was “the best professional development” they had ever experienced. I find this to be a telling statement in that teachers felt that their needs were important and that the focus of professional development was sincerely built around those needs. As teachers came together to deepen their understanding through their work in collaborative groups, this demonstrated an intense focus on their learning, as well as an intense focus on student learning. And, in conjunction with the beliefs of Muhammad and Haycock, schools like this one are operating under high expectations for all—which includes both teachers and students—and seeks to expand the potential of all individuals in the building.

The Importance of Structure

Principals, who, second only to teachers, impact student achievement in schools, must lead their buildings to create and maintain strong, collaborative models of professional development that serve to build collegial trust, encourage pooled intelligence, focus on student achievement, and provide time for ongoing professional learning. Their leadership is critical in building communities of learners within schools.
Only in these types of collaboratively focused schools has true school reform occurred, and strong, skillful leadership is important. Kouzes and Posner (2002) say that collaboration is a critical competency for teachers, though most professional development remains shallow and fragmented.

The collaboration model at the high school in this study had a well-developed structure for professional collaboration that all members of the faculty understood and respected. This design suggests strong leadership in articulating and sharing the vision for professional collaboration and a building-wide focus on student learning. Leadership, then, is a critical part in the structure of collaboration, as demonstrated by the school in this study. The school principal was noted, as was the school’s instructional coach, as helping provide continuous focus and feedback to the collaborative work done in each of the groups. Principals will find that they must slowly, patiently use the gradual release model to help teachers build a mental model for collaboration, its purpose, the challenges, and the overwhelming benefits.

The design for teacher collaboration should occur at least twice per month, on school time, as evidenced by the school studied in this research. This will disallow the argument that it requires too much time beyond the school day. Job-embedded professional development such as this is leveraged by the fact that teachers have an innate desire to learn—it is just overextended by the commitments of being a teacher. Helping teachers carve out job-embedded time to focus on improving their work in their craft in this way is essential.

Schools with professional collaboration demonstrate that their goals focus on both adult and student learning. However, it is a leadership responsibility to ensure that
collaborative work supports the school improvement plan and that adult learning needs uncovered through collaboration are supported through professional development opportunities.

The pooled intelligence of teachers is immense. Unfortunately, it can be difficult to shift the perspectives from some away from the protection of personal work they view as intellectual property. To overcome this natural initial response, teachers can be provided with protocols that allow them to share thoughts and work in non-threatening ways. It is also difficult to learn to hear critical appraisal of personal work, so using active listening protocols is also important to the success of the model. As some of the teachers in this study noted, it was difficult to overcome the barriers of sharing personal work with colleagues, as the work was evidence of an enormous investment of personal time and attention on the part of the originator of the work.

*Designing and Implementing Professional Development in Secondary Schools*

With the pressure of accountability higher than ever, it is imperative for school leaders to recognize and implement professional development models that have demonstrated success in schools. Though many reports and recommendations regarding professional development exist, most schools have not overhauled the methods used to design professional learning for teachers—those who have the biggest impact on student achievement. Collaboration places teaching and learning at the center of professional development.

Kouzes and Posner (2002), say that collaboration is the “critical competency” for gaining and maintaining high performance. School leaders can systematically implement
a program of collaborative professional development that positively impacts student achievement while simultaneously improving the culture of a school.

Models of collaboration help schools build a climate of trust by creating positive interdependence between teachers. Collaboration helps break down the barriers of teacher isolation and promotes an environment of face-to-face interactions, which was noted as a benefit by the teachers interviewed for this study. Barth contends that school quality and student achievement depend upon the degree to which educators can work with each other in professional partnerships. Collaboration builds these partnerships between professional educators in a school beyond the few close colleagues that most teachers seek out as their sounding boards for support.

With the educational profession’s shift in focus towards communities of learners, schools have been able to adopt more collaborative models of professional development. However, leadership is key in designing and maintaining the momentum that is created. If, as Barth says, relationships between adults in a building are the most crucial indicator of student performance in a school, school leaders must be focused and deliberate in designing effective collaboration.

By defining collaboration as the systematic process that allows teachers to work together to analyze and improve instructional performance and student learning, leaders can help teachers work together to establish common learning goals, design focused action research, and work to ensure that the needs of all students are met. These processes will require sustained professional interactions on the part of teachers. But, as both Darling-Hammond (2005b) and Schmoker (2009) point out, continuous group
learning focused on defined student learning goals is the ideal way to focus effective professional development within a school.

**Building the Model**

Collaboration involves intense practice in the art of building relationships with others—a skill critical for our students’ survival in the world outside of school. It follows, then, that teachers be engaged in the practice of building and sustaining meaningful professional relationships with their colleagues, as was found in the high school in this research. The school principal, too, plays critical role in the development of a collaborative culture. The principal must create a community of learners amongst faculty and guide school’s professional development programming to be succinct and focused to meet the needs of students and teachers, which teachers in this study noted had occurred during the course of implementation of this professional development model.

**Norming**

Teachers must undergo the practice of establishing group norms for behavior and use of collaboration time so all members of the group understand what is expected. At this early stage of collegial work, it is normal that this process feels contrived, but it is important not to allow teachers to skip over it. Just as in a classroom, behavioral expectations lay the groundwork for the interactions that follow. Once team norms have been established, the norms of all teams should be published or otherwise made public to help all members of the faculty understand the expectations of all of their colleagues’ teams.
Goal setting

A process must be established for establishing goals for the work that is done during collaboration. At the high school in this study, templates for the Departmental Improvement Plan guide this work. As noted by teachers in this study, collaboration is arranged departmentally, though other configurations may be used, depending upon the structure of the school. Departmental Improvement Plans help collaboration teams articulate a single shared instructional goal that all members of the group work toward accomplishing. As part of this planning process, teachers establish a focused research question, articulate their expected results, and establish a timeline for implementation and evaluation of progress.

Planning in this manner also involves identifying the method teachers will use to measure progress and specify what work products all members of the group will bring to the collaboration table to share with other members of the team. By establishing all of these items at the beginning of the process, not members of the group will be caught off guard later in the process.

Modeling Work Products

For collaboration to be meaningful and provide for the pooled intelligence of multiple professional educators reflecting upon their practice, it is necessary that school leaders help teachers identify the acceptable work products that will be generated out of collaboration time.

It should be a leadership expectation that each time the collaboration team meets, notes are taken, questions noted, and progress recorded. These collaboration minutes
should be given to the school principal, who can oversee progress and provide resources for continued growth. The school principal should also utilize descriptive feedback and record thoughts and questions on the minutes for the collaboration team to consider during its next meeting. This ongoing system of feedback also serves the purpose of monitoring accountability, because, as the saying goes, what gets monitored gets done. This system of ongoing feedback also allows the principal to ensure that collaboration time is being utilized to focus on instructional development and does not become consumed with items of departmental business, like deciding on finals schedules or discussing the supervision of student teachers. This structure, as described by teachers in this study, served as an effective model for promoting professional learning and ensuring a continued, common focus on student learning in this secondary school.

Evidence and Internal Accountability

Many schools lack coherence regarding expectations for student achievement, so they have no way of articulating what student achievement outcomes look like, nor what instructional practices need to be influenced to affect student learning. Evidence provides a means for internal accountability and is underscored by common goals for student learning and individual commitment to those goals. These can then be converted into external measures of accountability, including work products, individual reflective practices, and evaluation of goal accomplishment.

The first work that should be looked at during collaboration is the work of the students. Whether the team decides to examine student work collected in order to discover misunderstandings that need to be corrected or decide to examine work that is generated during the use of an instructional strategy researched during collaboration, the
examination of student work and teachers’ instructional practices is a tool that leverages nearly all of the other work done in collaboration.

The examination of student work from the classrooms of every member of the team also guarantees implementation of the professional learning that occurs during collaboration. When the collaboration team skillfully utilizes protocols such as the Whip-Around or Peeling the Onion to analyze student work, all members of the team benefit. The teacher whose student generated the work is allowed to reflect upon the questions raised by colleagues and benefits from reinforcement and critical feedback that will strengthen future practices. Teachers who are looking at the work of their colleagues understand the caliber of work being done by others and gain respect for the skills of others.

Collaborative interactions such as these serve the purpose of building teacher self-efficacy, which has been shown to improve student achievement. They also serve the purpose of building “local expertise” in instructional practices, in turn building leadership capacity within teachers. Teachers in this high school came to understand the expertise of their peers and said that they felt comfortable seeking guidance from other teachers who possessed different strengths that their own. This demonstrates what I interpret to be positive interdependence, which was borne out of the sharing of student work and reflective practices of the collaborative group.

Another means of building leadership capacity in faculty members is to structure collaborative groups with a group facilitator. These individuals should not be teachers who already possess leadership responsibilities, i.e., department chairpersons. Facilitators gain leadership responsibility through interacting with the school principal in
providing feedback regarding the work being conducted during collaboration and are able to act as a sounding board between other members of the collaboration team and school leadership. They also gain credibility with their peers by ensuring that the group adheres to the established norms and uses time productively.

*Feedback and Evaluation*

Principals will have multiple opportunities to give feedback: collaboration minutes, facilitator meetings, evaluation of Departmental Improvement Plans, and walkthrough feedback. All of this feedback should be constructed with the focus kept on student learning results. With all feedback focused on student learning, the mission of the school and the school’s improvement goals are kept in focus for all members of the team. As shown by the teacher perceptions gathered in this study, it is very important that feedback be regular and meaningful, as teachers remain ever cognizant of their leader’s voice in the continuous quest for instructional growth.

*Use of Action Research*

At the high school in this study, Departmental Improvement Plans are developed, implemented and evaluated each semester. This timeframe holds teachers accountable to researching and implementing instructional best practices that support the Departmental Improvement Plan in a reasonable amount of time. At the end of the semester, team members discuss the work that has been accomplished toward their overall goal and decide whether to continue with implementation of the same strategy or to move toward researching and implementing a new strategy. Here it is important that the principals have built a collaborative culture that allows for the honest assessment of instructional
strategies and their impact on student learning. Teachers must be able to identify strategies that do not work, assess why they do not work, and adopt others that will promote the student learning goals.

Accountability

Teachers in this study found the processes associated with accountability in their collaboration model effective in that the requirement to turn in evidence and other accountability measures helped them maintain their focus on student learning and their role in their group’s work.

Every piece of work generated during collaboration measures back to accountability. Collaboration minutes, Departmental Improvement Plans, protocols, and student work from each teacher is part of the record of the work accomplished during collaboration. This level of accountability—knowing the collaboration facilitator hands all of these documents over to the school principal—serves the additional purpose of ensuring institutional implementation of professional development strategies in the classroom, where they leverage student learning. If the measurement of professional development lies in the five levels set forth Guskey (2000), then level 5 professional development is most effective when impacts are measured in terms of student learning outcomes. However, this is not the case in most schools, where professional development is separate from the daily instructional work being performed in the classroom. Until professional development is seamlessly embedded into the daily practices of teaching and learning on a wholesale basis, reports, studies, and legislation are having no more impact than making suggestions regarding school reform and
measuring student achievement using standardized measures that educators do not see as related entities in the educational profession.

The documentation of collaboration is a necessity, as it provides a collection of evidentiary artifacts of the implementation of professional research and learning. It is only through this type of systemic implementation across all classrooms in a content-area department or building that any professional development can leverage student achievement.

Value of Collaboration for Teachers

School leaders must establish an urgency for teachers who are entrenched in their classroom lives to participate in sustained, collegial collaboration. A driving motivation behind teacher interaction lies in its direct connection to the urgent, everyday work teachers must do. As teachers engage in collaboration, they listen to their colleagues and are forced to formulate responses that require them to articulate their instructional purpose, the expected outcomes, and reflect upon how closely their results match their intentions. Rarely do teachers explicitly engage in this process without an environment of collaboration to act as the forcing function. Teachers in this study noted their extensive beliefs regarding the value of professional collaboration as a tool that aided their professional growth and a positive shift in the climate and culture of the school.

Additionally, the beneficial nature of interactive dialogue expands the expertise of individuals, utilizing the pooled experiences of multiple people. Professional collaboration is one of the venues teachers utilize to remain focused upon the mission of education and helps fend off teacher burnout, which is caused by continuously acting
without purpose. I also noted that, through the course of the interviews with teachers in this study, they all utilized a common academic language, sharing understandings and definitions of key pedagogical terminology, which points to a shared understanding of the professional learning and mission of the school.

In this high school, extensive descriptions by teacher participants point to the use of artifacts and evidence as an integral part of the collaboration model. This use of accountability data strongly encourages implementation of professional development in classrooms, where it is able to impact instruction at the level of student learning. Accountability also is shown to have impacted instructional process skills through the implementation and refinement of lessons in this high school. Another method of accountability is found in this high school’s use of student work, which is brought to collaboration meetings to be examined by all members of the collaborative group. This measure ensures that all teachers are participating in not only professional development, but are also engaging in evaluation and reflection of the work with their colleagues.

Feedback from both the principal and the instructional coach in this high school were cited by teachers as being important to their group’s progress. This feedback provides guidance to the work of the collaborative groups, and also serves as a way for the building’s leaders to monitor the work of the teachers in the building. Teachers understand that their work is monitored, and appreciate the comments and feedback they receive that are specific to their work. Because this system of monitoring is in place, it serves as an additional layer of accountability for the collaboration model in this high school, helping to ensure its continued productivity and focus on student learning.
Leadership in Collaborative Schools

The Leadership of Collaboration

Schools where collaboration is successful have a strong leadership presence. Faculty members must view the leader as an instructional leader who is committed and focused on the growth of professional learning. Additionally, collaboration models require an investment of time and a commitment of sustained support by the school leader.

School leaders must provide timely, descriptive feedback to collaboration groups in order to spur continued growth and they must closely monitor the work of the collaborative groups in their building. For collaboration to gain momentum, principals must establish a sense of urgency for teachers to work together to address the challenges of students, and they must elicit from teachers the belief that students will learn more as a result of what is being done in the classrooms.

Bennis and Nanus (2007) describe leaders as social architects. Every leader is different, and it is true that different leadership styles can all be successful, depending upon the context of leadership relationships. Social architects build plans that detail the role of every member on the team, defining responsibilities and laying the groundwork for the interactions in an organization. This type of leadership promotes a positive organizational climate and inspires confidence in leadership, as others know they are only being asked to complete tasks or live by guidelines that their leader is also undertaking.

Because leadership can either promote or hinder school reform, it is critical for high schools that seek to adopt a collaborative professional development model have progressive leadership (Johnson, 2006). Transformational leadership has been reported
in professional literature as the leadership style most conducive to positive school reform. Huffman and Jacobson say these kinds of school leaders “deal with complex long-range planning, are more proactive, provide authentic collaborative opportunities, and anticipate problems and changes (p. 242). Transformational leaders also tend to exhibit the attributes that Bennis and Nanus (2007) describe in collegial leaders, who build environments of shared decision-making, where every member of the team is afforded input. Successful collegial leaders build trusting relationships with their subordinates, who are confident that their roles are important to the operations of the organization, as the input of all stakeholders is valued.

Bennis and Nanus (2007) also describe the leadership imperatives associated with organizational mission. They explain that it is a necessary condition of leadership that all members of the organization adhere to a common mission and a common set of goals that guide day-to-day work. It is their belief that if leaders are unable to establish a mission and vision that all decisions can be pointed back to, it is necessary to “tear the posters off the walls.” This way, leaders are engaging in leadership actions that are congruent with the printed mantras everyone in the organization is expected to believe in and live up to.

This view is also supported by Christie (2002) who describes the eight dimensions of transformational school leadership:

1. building school vision
2. establishing school goals
3. providing intellectual stimulation
4. offering individualized support
5. modeling best practice and important organizational values
6. demonstrating high performance expectations

7. creating a productive school culture

8. developing structures to foster participation in school decisions (p. 132).

Bennis and Nanus (2007) also describe change as not being a result of natural selection. They say that change and the ensuing processes are a result of decisions leaders make. Because change processes are cyclical and every stage must be understood and addressed by leaders, it is critical that, in the beginning of the change cycle, leaders interpret information about the past and present, crafting a credible vision for the future. This leadership activity allows others in the organization to begin to build a shared vision and helps to underscore the purpose for engaging in the change process. When the purposes of the leadership decisions that triggered change are understood, other members of the organization can buy into the change and work through the stages of change more readily. As such, strong leadership gives the future or the organization legitimacy and empowers others to help achieve the vision.

Another attribute of leadership involves inspiring and guiding the actions of all of the members of an organization toward continuous work toward a common mission, vision, and set of goals. While this is the attribute many first think of in defining successful leadership, this attribute, by itself, will not make an individual a successful organizational leader. It is important to inspire others and it is important to have vision, but vision without the ability to carry out a plan for action is absence of leadership.

Persistence and determination are critical leadership attributes. Leaders must inspire others to work toward a vision, but without persistent work to ensure progress, the
vision can never be achieved. Coupled with persistence is determination. Determination is necessary for leaders who encounter challenges; it is necessary in the work of leadership to be determined to overcome hardships and to be determined to stay the course. These qualities, in concert with a leader’s commitment to the organization and the organizational vision, are critical to successful leadership.

Kouzes and Posner (2002) ask a series of questions related to personal values, personal satisfaction, and personal goal setting. They contend that it is necessary for all members of an organization to have a clear sense of personal purpose—from the leaders to the custodial staff—to possess organizational purpose. Without purpose, it is likely that people will spend energy moving toward no concrete goals, without which there can be no sense of accomplishment. It follows, then, that if there is never a sense of professional accomplishment there can never be satisfaction. If that is the case, leaders and employees will experience burnout, which is detrimental to the health and longevity of an organization.

Kouzes and Posner (2002) point out that failures are inevitable. They report a quote that relates that “success does not breed success, it breeds failure. Failure, then, is what breeds success. Finally, they describe leaders as those who must be in charge of change, must manage the boredom and anxieties that accompany change, and must recognize and celebrate the contributions of individuals in their organization. Leadership is really a delicate balancing act that requires leaders to know and manage the needs of people against the needs and well being of the organization.
Leadership Characteristics

The leadership characteristics demonstrated by the principal in the school in this study exhibit the characteristics of the collegial leadership described by the professional literature. Teachers in this study articulated understanding for the principal’s goals in establishing the professional collaboration model, which was further demonstrated by the value they assigned to the work generated from collaboration. Another characteristic of leadership that exists in this school is guidance toward a common mission.

The principal in this high school was said to have articulated a clear goal for student learning, which teachers said guided their daily work. Because an organizational goal was established that supported the mission of the school, teachers could identify with the reasons for transforming the previous model of professional development and working toward collaborative interaction with their peers.

Teacher leadership also grew as a result of the collaboration model implemented in this school. There were numerous opportunities for both novice and veteran teachers to take on leadership roles in collaborative work, building confidence and trust in “local” expertise. This distributed leadership model can be interpreted to show that the principal leading this building is a transformative leader, who seeks to build capacity in the individuals within the organization.

Efficacy

Professional development can be effective in helping teachers attack the achievement gap in high schools by helping them understand what Muhammad (2009) calls school efficacy, or what the school believes it can do for its students and is
constructed of the collective beliefs about the abilities of students. When high school teachers, who can be notoriously skeptical of their responsibility in the relational support of students, understand that efficacy and student relationships form part of the foundation for plans to close the achievement gap, important gains have occurred. Further, Bandura (1995) reports “diverse casual tests in which efficacy beliefs are systematically varied, are consistent in showing that such beliefs contribute significantly to human motivation and attainments” (p. 3)

Collaboration, as a model for professional development, helps establish a culture of learning for the adults in a school that elevates the importance of reflection upon professional practice in a way conferences, workshops, and other short-term professional development opportunities cannot. Sustainability, then, with a deliberate focus upon action research related to professional practice, instructional design, and student learning outcomes, is much greater when schools build a collaborative model of professional development.

Collaboration is also responsible for breaking down the barriers of isolation between teachers that exist in many high schools. As collaboration is a cornerstone of the professional learning communities model, Liston (2004) is in the conviction of the importance of a collaborative adult learning environment: to endure as teachers they need to continue to learn. Without companionship in their love of learning, teaching feels quite isolated and can be difficult to sustain for a long period of time. It seems many teachers yearn for some sort of intellectual connection and companionship (p. 471).
Collaboration, as described by Liston (2004) was evident in the interactions described by participants in this study, as was a reduction in the perceptions of professional isolation felt by teachers in this study. Through the descriptions provided by teachers, it was obvious that this high school supports professional collaboration, as teachers have been given time within the school day for their work with each other and the administration provides extensive support and feedback to guide the work the adults are doing in their collaborative groups.

Teachers in this study felt that their instructional had improved as a result of their work in collaboration, demonstrating a positive relationship between collaboration and increased teacher self-efficacy. Teachers felt that their work was more effective in impacting student learning, and they believed that they were more skilled in evaluating student learning as an outcome of instruction, rather than basing their interpretations of student learning on the empirical grades assigned to grade books. This shift in teachers’ perceptions of professional effectiveness point to collaborative professional development as a means for improving the self-efficacy of teachers. And, when teachers believe they are doing a better job, this confidence is delivered to students in the form of higher quality instructional design and strategic evaluation of the needs of students in the classroom.

Teachers in this study through the extensive use of the pronouns “our” and “we” also demonstrated efficacy. When referring to the work done in collaboration, there were multiple instances when teachers shared their view of the importance of “our work” and referred to progress in terms of what “we have
done.” This shift from the first person singular to first person plural pronouns I interpret as growth of self-efficacy, or belief in the value of the collective work being accomplished in collaborative professional development work.

According to Bandura’s (2005) four reported influences on self-efficacy, it can be said that the collaborative professional development model in this high school utilized three methods of improving self-efficacy: mastery experiences, vicarious experiences, and social persuasion to improve teachers’ beliefs about their instructional effectiveness and their abilities to positively change student learning.

**Implications**

I can draw a number of implications from this study. The implications are important, as they demonstrate the need for a transformation of professional development in secondary schools to include collaboration as a cornerstone for teacher learning.

- Teachers must have a strong understanding of the purpose of collaboration, using the time to focus on the work of teaching and learning.
- Collaboration must have multiple means of accountability built in to ensure steady progress toward student learning goals.
- Collaboration must have a clear structure, including time during the school day, means of establishing and recording group goals, and methods for recording the work accomplished in each collaborative meeting.
Leaders in schools with collaborative professional development must help build leadership capacity within teachers and provide regular, substantive feedback to teachers regarding their work in collaboration.

Collaboration is a quality structure for professional development in secondary schools, meeting the indicators set forth by NSDC.

Teacher self-efficacy increases as a result of participation in collaborative professional development.

These implications point to the strengths of a clearly defined, sustained model of collaborative professional development. However, it is also important to report the weaknesses discovered in collaboration during the course of this research.

It was noted by one of the teacher participants that collaboration was not a successful model of professional development for him, because his work was confined to a small department where the other teachers were not engaging in the collaborative process and sought to resist sharing and working toward the building’s common student learning goals. For this teacher, collaboration had a freezing effect on his professional growth, as it was the model used extensively in the school, not allowing for many other opportunities for his professional learning.

A few teachers who had to learn to deal with strong personalities in their collaborative groups noted another difficulty. The teachers with these strong personalities sometimes served to derail the work of the group, shifting the focus from teaching and learning to complaints about student behaviors and other negative thoughts. The teachers who shared these problems in their interviews noted that they had learned
how to refocus the work of the collaborative group by referring to the group’s norms, but still related this to be a struggle in relation to the sustained productivity of the collaborative group.

**Considerations for Future Research**

This study recommends some additional considerations for future research. An ongoing, longitudinal study of this large, suburban Midwestern high school could elicit additional information regarding the impact of collaborative professional development on student learning outcomes, which could be measured through the study of student achievement indicators over time. Additionally, research could focus on the specific process goals implemented by each collaborative group to determine which had the greatest impact on student learning.

Another consideration for future research lies in the area of teacher efficacy. Researchers might seek to determine the specific collaborative behaviors that have the greatest influence on teacher self-efficacy. Another lingering question lies in what demographic characteristics of teachers indicate the greatest gains in efficacy as a result of collaborative professional development.

The results of this study demonstrate the need for collaborative professional development in secondary schools. This model of professional development provides the sustained, job-embedded learning environment that demonstrates a positive impact on school culture, teacher efficacy, and an institutionalized focus on student learning as the mission of the school. Teachers in this study reported that this model of professional development was the most valuable model for professional learning they had experienced
in their careers, and shared numerous ideas and beliefs regarding the value of shared
ideas, pooled intelligence, and instructional effectiveness that resulted from their work in
collaboration with their peers. Although the work of breaking down the barriers of
isolation that exist in secondary schools can be a daunting proposition, this study signifies
the value that can be added to professional practice if a well structured, monitored model
of professional collaboration is implemented as a means of professional development.
References


Muhammad, A. (2009). *Transforming School Culture: How to Overcome Staff Division.* Bloomington, IN: Solution Tree.


Name of Participant  
Organization Name  
Address Line 1  
Address Line 2  
Address Line 3  
City, State, Zip code

March 1, 2010

Dear <Insert Name of Participant>

As a doctoral student at the University of Nebraska-Lincoln, I am conducting a study to understand the impact of meaningful, sustained professional development on teacher effectiveness and the impact of professional collaboration on teacher efficacy. This is the sole purpose of the study. The results should be of interest and value to school administrators, professional development coordinators, university faculty within Educational Leadership preparation programs, and to those developing professional development opportunities for professional educators.

I am inviting you to participate in the research by participating in an oral interview. Your experiences and ideas are important for those who plan and lead professional development for educators and for overall school improvement. I invite you to participate in a 90-minute interview to answer interview questions that will be audiotaped. I will keep your identity and the identity of your school district confidential. I intend to use a pseudonym to conceal your identity.

If you agree to participate, I will provide you with a copy of the transcript of the interview. This will give you the opportunity to clarify your responses. On completion of the study, I will share a summary of the findings with you.

You may contact my supervisor, Dr. Marilyn Grady, at (402) 472-0974 at the University of Nebraska-Lincoln for further clarification or should you have any concerns about my study. If you agree to participate in this study, please sign/date where indicated below, and return the letter in the self-addressed, stamped envelope included in this mailing. Upon receiving your signed letter, I will contact you to schedule an interview.

I thank you in advance for agreeing to participate in this study.

Very sincerely,

Marlie Williams, Ed.S.

I am interested in participating in this study and agree to be contacted for an interview:

Name ________________________________ Date ___________________

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300
INFORMED CONSENT FORM

IRB# 10558

Title of Project:
Teacher Collaboration as Highly-Effective Professional Development within a Large, Suburban High School

Purpose of the Research:
The purpose of this case study is to explore the impact of meaningful, sustained professional development on teacher effectiveness and the impact of professional collaboration on teacher efficacy.

Procedures:
Participation in this study will require 90 minutes of your time for the interview. You will be asked to participate in an interview with the study’s principal investigator, Marlie Williams, who will audiotape with your permission. You may ask that the tape be turned off at any time during the interview. The tape will be transcribed by a professional transcriptionist and will be sent to you for review. At that time, you may clarify your responses or give the researcher other information. You may select a place with the researcher for the interview.

Risks and/or Discomforts:
There are no known risks or discomforts associated with this research.

Benefits:
Researchers have found that when people are given the opportunity to talk about their experiences, they often develop new insights related to those experiences that are personally or professionally meaningful. Thus, you may gain some personal benefit from participating in this study.

Confidentiality:
Any information obtained during this study that could identify you will be kept strictly confidential. The data will be stored in a locked cabinet in the investigator’s home. The data will only be seen by the investigator during the study. The information obtained in this study may be published in scientific journals, professional educational books or journals, or presented at scientific meetings but the data will be reported as aggregated data. The audiotapes will be erased after transcription verification is deemed accurate.

Compensation:
None

**Opportunity to Ask Questions:**
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may call the investigator at the numbers listed below. Please contact the investigator if you want to voice concerns or complaints about the research or in the event of research-related injury. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-0974 for the following reasons: you wish to talk to someone other than the research staff to obtain answers to questions about your rights as a research participant; to voice concerns or complaints about the research; to provide input concerning the research process, or in the event the study staff could not be reached.

**Freedom to Withdraw:**
You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators, the University of Nebraska-Lincoln, or your school. Your decision will not result in any loss of benefits to which you are otherwise entitled.

**Consent, Right to Receive a Copy:**
You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

___________ Check if you agree to be audiotaped during the interview.

**Signature of Participant:**

_________________________ __________________________
Signature of Research Participant Date

**Name and Phone number of investigator(s):**
Marlie Williams, Ed.S., Principal Investigator  Office: (816) 671-4080
Marilyn Grady, Ph.D., Secondary Investigator  Office: (402) 472-0974
CONFIDENTIALITY AGREEMENT – TRANSCRIPTIONIST

I ___________________________________________, hereby agree that I will maintain confidentiality of all tape-recorded interviews that I have been contracted to transcribe for the following research project: **Teacher Collaboration as Highly-Effective Professional Development within a Large, Suburban High School.** This means that I will not discuss nor share any tape-recorded nor transcribed data with any individuals other than the researcher, Marlie Williams.

When the transcriptions are complete, I will return all audiotapes to the researcher and will transfer all electronic files to the researcher. Upon confirmation of receipt of these files by the researcher, I will destroy the originals.

_______________________________                           ______________________
(Signature of Transcriptionist)                                                   (Date)
IRB New Protocol Submission

**Project Title:** Teacher Collaboration as Highly-Effective Professional Development within a Large, Suburban High School

**Investigator Information:**

<table>
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<tr>
<th>Principal Investigator:</th>
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<tr>
<td>Marie Williams</td>
<td>Marilyn Grady</td>
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<td>128 TEAC UNL 66568-0390</td>
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<td><a href="mailto:mgrady@urnserve.unl.edu">mgrady@urnserve.unl.edu</a></td>
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</table>

* Student theses or dissertations must be submitted with a faculty member listed as Secondary Investigator or Project Supervisor

Principal Investigator Is: Graduate Student

Type of Project: Research

Does the research involve an outside institution/agency other than UNL? Yes

If yes, please list the institutions/agency: St. Joseph School District, St. Joseph, MO

Where will participation take place? (e.g., UNL, at home, in a community building, etc)

Participant interviews will take place in public school conference rooms and in public school office facilities.

A random sample of 25 teachers will be invited to participate in an interview. These teachers will be selected randomly from the published list of faculty listed on a public high school faculty directory webpage.
*Note: Research can only begin at each institution after the IRB receives the institutional approval letter.

**Project Information:**
Present/Proposed Funding Source: Self  
Project Start Date: 01/01/2010  
Project End Date: 01/01/2011

1. Does the research involve prisoners?  
   No

2. Will the research only be conducted in schools or educational settings?  
   Yes
   Does the research study involve only normal education practices (such as research on regular and special education instructional strategies, or research on effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods)?  
   Yes

3. Does the research involve only the use of educational tests, survey procedures, interview procedures, or observation of public behavior? (The use of pre-existing data does not fall into this category.)  
   Yes
   Does the research involve children (under 19 years of age)?  
   No

   Does the research only involve the observation of public behavior where the investigator does not intervene or interact in the activities being observed?  
   N/A (or no answer)

   Is the information recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects?  
   No

   Could any disclosure of the human subjects' responses outside the research reasonably place the subjects at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation?  
   No

   Are the subjects elected or appointed public officials (e.g. senior officials, such as mayor or school superintendent, rather than a police officer or teacher)  
   No
APPENDIX D

N/A (or no answer)

Does any Federal statute require without exception that the confidentiality of personally identifiable information will be maintained throughout the research and thereafter?

N/A (or no answer)

4. Does the research involve only the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens?

No

Are these sources publicly available?

N/A (or no answer)

Will the information be recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects?

N/A (or no answer)

5. Does the research involve only studying, evaluating or examining public benefit or service programs?

No

Is the research or demonstration project conducted or approved by the Department or Agency Head?

N/A (or no answer)

Does the research or demonstration project involve only the study, evaluation, or examination of:

Public benefit or service programs:

N/A (or no answer)

Procedures for obtaining benefits or services under public benefit or service programs:

N/A (or no answer)

Possible changes in or alternatives to public benefit or service programs or to procedures for obtaining benefits or services under public benefit or service programs:

N/A (or no answer)

Possible changes in methods or levels of payment for benefits or services under those public benefit or service programs:

N/A (or no answer)
Does the research or demonstration project involve only the study, evaluation, or examination of the previous 4 categories?
N/A (or no answer)

6. Does the research involve only a taste and food quality evaluation or food consumer acceptance study?
No

Are wholesome foods without additives consumed?
N/A (or no answer)

Is food consumed that contains a food ingredient, agricultural chemical, or environmental contaminant at or below the level found to be safe by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture?
N/A (or no answer)

7. Does the research present more than minimal risk to human subjects?
N/A (or no answer)

For each category, please mark if it is a part of the project:

1) Clinical studies of drugs and/or medical devices?
N/A (or no answer)

2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture?
N/A (or no answer)

3) Prospective collection of biological specimens for research purposes by noninvasive means?
N/A (or no answer)

4) Collection of data through noninvasive procedures routinely employed in clinical practice, excluding procedures involving x-rays or microwaves?
N/A (or no answer)

5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis)?
N/A (or no answer)
6) Collection of data from voice, video, digital, or image recordings made for research purposes?
N/A (or no answer)

7) Research on individual or group characteristics or behavior (including but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior)?
N/A (or no answer)

8) Research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies?
N/A (or no answer)

Does the research involve any procedures included in the previous 8 categories?
N/A (or no answer)

Could identification of subjects put them at risk of criminal or civil liability, or be socially or economically damaging?
N/A (or no answer)

6. Does the research involve clinical studies of drugs and medical devices?
N/A (or no answer)

Is FDA required?
N/A (or no answer)

6. Does the research involve collection of blood samples by finger stick, heel stick, ear stick, or venipuncture?
N/A (or no answer)

From healthy, nonpregnant adults who weigh at least 110 pounds? (Amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week)
N/A (or no answer)

From other adults and children considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.
N/A (or no answer)
APPENDIX D

Description of Subjects:
Total number of participants (include controls): 20

Will participants of both sexes/genders be recruited? Yes
Will participation be limited to certain racial or ethnic groups? No
What are the participants' characteristics?
Participants are current high school teachers with three or more years of experience participating in
collaborative professional development.

Type of Participant: (check at appropriate blanks for participant population)

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<td>Adults with Legal Representatives</td>
<td>Persons with HIV/AIDS</td>
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Other (Explain):

Unique Research Methodology or Data Sources
Will your project involve audio taping? Yes

How long will tapes be kept? Where will they be stored? Who will have access to the tapes? If
transcriptions are required, how will transcriptions be handled? Who is doing the transcriptions?
Please attach a copy of the confidentiality agreement that transcriptionists will sign.

No one except the researcher will have access to the interview transcripts. Participants will not be
identified in any way, real names will not be used. If participants are quoted, a pseudonym will be
used for each participant.

Hard copy records will be kept for 3 years before they are destroyed. Records will be kept in a
locked filing cabinet in the researcher's home, with only the investigator, Marie Williams, having
access to the records.

Transcripts will be made by a professional transcriptionist, who will sign a confidentiality agreement
prior to beginning work on the transcription process.

Is this project web-based research? No
Is this study utilizing Protected Health Information (PHI; e.g., information obtained from a hospital, clinic,
or treatment facility)? No
Does this project involve genetic data/sampling/analysis, illegal drug use, or criminal activity that places the participant at risk for legal action? No

Does this project involve photography? No

Does this project involve videotaping? No

Does this project involve archival or secondary data analysis? No

Does this project involve biological samples? No

**Project Personnel List:**

Please list the names of all personnel working on this project, starting with the principal investigator and the secondary investigator/project advisor. Research assistants, students, data entry staff and other research project staff should also be included. For a complete explanation of training and project staff please go to http://www.unl.edu/research/rrr/index.shtml.

<table>
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<th>Name</th>
<th>Role</th>
<th>UNL Status</th>
<th>Is Involved In Design/Supervision</th>
<th>Is Involved In Data Collection</th>
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**Project Description**

1. Describe the research purpose of the project.

*What is the purpose of the study? (Please provide a brief 1-2 paragraph explanation in lay terms, to include a brief literature justification.)*

The purpose of this study is to explore the impact of sustained professional development on teacher effectiveness and the impact of professional collaboration on teacher efficacy. Although research on the professional development of teachers is plentiful, there are few studies that measure the impact of a sustained, collaborative professional development program on instructional effectiveness and teacher efficacy. With increased accountability for student achievement affecting today’s teachers, it is critical to understand the components of a professional development program that has a profound impact on instructional practice.

This study seeks to gather information regarding teachers’ instructional practices, their participation in collaborative professional development, and the impact of collaboration on teacher efficacy.

2. Description of the Methods and Procedures.

*Describe the data collection procedures and what participants will have to do.*

Personal interviews will be conducted with teachers. Participants will be interviewed in a private office or conference room, where they will be asked a series of questions regarding their professional growth activities. The categories of questions will include frequency, type, location, quality, and impact of professional development on instructional practices.
How long will this take participants to complete?
90 minutes each

Will follow-ups or reminders be sent?
No

3. Description of Recruiting Procedures
How will the names and contact information for participants be obtained?
The participants are public school teachers whose names and contact information are published public knowledge.

How will participants be approached about participating in the study?
Participants will receive a letter of invitation to participate in the study.

4. Description of Benefits and Risks
Explain the benefits to participants or to others.
Research has concluded that when people are able to discuss and reflect upon their experiences, they are able to develop new insights which are both personally and professionally meaningful.

Additionally, information regarding the impact of high-quality, collaborative professional development has the potential to impact school improvement planning on a broad scale. When professional development is effective and improves instructional effectiveness and teacher efficacy, it can positively impact student learning. This study could be part of a body of research that informs the practices of school administrators and teachers.

Explain the risks to participants. What will be done to minimize the risks? If there are no known risks, this should be stated.
This study will add to the growing body of literature regarding collaborative professional development and poses no known risk for participants.

5. Description of Compensation
Will compensation (including money, gift certificates, extra credit, etc.) be provided to participants?
No

6. Informed Consent Process
In certain cases for children over the age of 14, such as UNL students who are 17 or 18, waivers of informed consent can be granted.

Would you like to request a waiver of consent?
No

How will informed consent/assent be obtained?
Informed consent will be obtained through a signed informed consent form. See attached.

7. Description of How Confidentiality will be Maintained
How will confidentiality of records be maintained?
Interview Protocol

Interview Protocol: Teacher Collaboration as Highly-Effective Professional Development within a Large, Suburban High School

Time of Interview:
Date:
Place:
Interviewer:
Interviewee Code Number:

Questions:

Describe your job as a school as a teacher. **Prompt:** Please describe your professional role, duties, and training you have received to prepare you for this role. How many years have you been a teacher? What degrees do you hold?

Please share how your role fits in your school’s overall structure. **Prompt:** Who is your supervisor? What supervision responsibilities do you have? How many faculty members work in your school and how many students attend your school?

Questions:

How does collaboration provide professional development for teachers? **Prompt:** What professional development activities have you participated in within the last year? What were the topics of these activities? Describe these professional development experiences.

Describe the timeframes of the professional growth activities you participate in. **Prompt:** Explain the professional development opportunities you have experienced, noting if they are one day, conferences, or job-embedded over time?

How do you define professional collaboration?

How long have you been involved in a collaborative professional development structure? What are the benefits of collaboration?

What professional development activities have you participated in that are collaborative in structure?

How do you choose the professional development activities that guide your professional growth? **Prompt:** How do you learn about these professional development opportunities?
How do you choose the focus of your work? Who plays a part in the decision-making? How do the needs of students impact your group’s collaborative goals?

Describe your collaboration group. **Prompt:** How many people comprise your collaboration team? What departments are involved in your collaboration group? What courses?

Describe the interactions between team members. How do the conversations between collaboration team members affect your instructional practices?

What types of work occur/are produced during collaboration time? Describe the work that is accomplished? How often does the work product include common lessons, critique student work, and analyze data? Please describe these topics in detail.

How do you develop goals for your work during collaboration? How are these goals shared? How do you develop individual goals?

Does collaboration build a sense of shared responsibility for student learning? **Prompt:** How does the work that occurs during collaboration make you feel about your responsibility for student learning?

What role does research play in your group’s work?

How does collaboration affect the learning environment of your school? Is data a part of your collaborative decision-making?

Who monitors the work during collaboration? What are the cultural expectations of your school for collaboration?

How are your group’s collaboration goals aligned to your school’s overall improvement goals?

How does collaboration affect teacher efficacy? **Prompt:** Describe how collaboration increases your effectiveness as a teacher?

Describe what you learn from your colleague that increases your effectiveness as a teacher.

How often do you implement new approaches to teaching in your classroom? Explain the benefit to your students? How do you know?
Describe the impact of collaboration on your instructional practices. What changes, if any, have occurred in the way you measure your instructional effectiveness as a result of your participation in collaboration?

Describe the collaboration topics that have had the most impact on your instructional practices.

Where do you gain ideas about new approaches to instruction? Describe.

Who encourages your collaboration?

How has collaboration impacted your skill as a teacher? Describe the difference in your work before collaboration and after it.
February 19, 2010

Marlie Williams  
Department of Educational Administration  
4705 Huntsboro Court  
St. Joseph, MO

Marilyn Grady  
Department of Educational Administration  
128 TEAC UNL 68588-0360

IRB Number: 20100210558 EX  
Project ID: 10558  
Project Title: Teacher Collaboration as Highly-Effective Professional Development within a Large, Suburban High School

Dear Marlie:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board’s opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution’s Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as exempt category 2.

You are authorized to implement this study as of the Date of Final Approval: 02/19/2010. This approval is Valid Until: 01/01/2011.

1. The approved informed consent form has been uploaded to NUgrant (Williams ICF-Approved.pdf). Please use this form to distribute to participants. If you need to make changes to the informed consent form, please submit the revised form to the IRB for review and approval prior to using it.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

• Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
• Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
• Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
• Any breach in confidentiality or compromise in data privacy related to the subject or others; or
• Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP
for the IRB