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# Teacher Motivation and Learning: Reflective Participation in Professional Learning Communities

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Teacher Motivation and Learning: Reflective Participation in Professional Learning  
Communities

by

Christopher Charles Smart

A dissertation submitted in partial fulfillment  
of the requirements for the degree of

Doctor of Education  
in  
Learning and Leading

University of Portland  
School of Education

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### **Abstract**

As part of the ongoing search for meaningful school reform, many schools have organized themselves into professional learning communities to improve student learning and support teacher learning. Most of the studies on PLCs have focused on their impact on student learning and not on why and how teachers are involved individually and collectively in a meaningful way to support student learning and improved instructional practices through their own professional growth

This qualitative study addresses the motivation of secondary school teachers to engage in their professional learning through their participation in PLCs. The study also sought to explore whether this participation affected teacher learning and their instructional practices. Three research questions guided the study: (a) what motivates teachers to get and remain involved in PLCs; (b) how did teachers believe their participation in PLCs affected teacher learning; (c) did the teachers perceive their participation in PLCs impacted instructional practices. Through one-on-one interviews with teachers, observations of PLCs, artifact collection, and survey responses, data were gathered to learn about how self-motivation influenced teacher involvement in PLC activities. Data collection and analysis were guided and viewed through the lens of Self-Determination Theory, a theory of motivation which focuses on the intrinsic tendencies of people to behave in healthy ways, through their fulfilment of the basic

psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 1985; Ryan & Deci, 2000).

The major findings of this study identified that while teachers are actively involved in regular PLC activities and are able to demonstrate the essential motivational needs of autonomy, competence, and relatedness, the fact that they are not able to choose their own PLCs nor share a common definition of what a PLC is limits the effectiveness of this process. Autonomy, actualized through the choices that teachers have to influence the activities of their PLC activities, and relatedness, actualized through collaboration and shared work, are present but are dependent upon tenure, department membership, and teacher's educational philosophy. Also, the lack of a clear sense of how PLCs can support collective inquiry and action research suggests that there will be an inconsistent experience of the benefits of PLCs.

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## **Chapter One: Statement of the Problem**

The concept of a Professional Learning Community (PLC) is based on a practice and belief of the business sector that organizations can learn. Beginning in the 1980's and expanding rapidly throughout the 1990's, this concept of a learning organization was applied to the world of education and became that of a learning community that would strive to develop collaborative work cultures for teachers (Thompson, Gregg, & Niska, 2004). Studies showed that the most effective schools as well as the most effective academic departments within schools operated as strong professional communities (Little & McLaughlin, 1993; Newman & Wehlage, 1995). Although there is a multitude of definitions for what comprises the structure and functions of PLCs, the literature does support the premise that PLCs are grounded in three assumptions:

1. A focus on learning for all students;
2. A collaborative culture and a collective effort to support student and adult learning;
3. A results orientation to improve practice and drive continuous improvement. (DuFour & Fullan, 2013; Vescio, Ross, & Adams, 2008).

Building upon these fundamental assumptions, educators must focus on four seminal questions in order to ensure that student learning, and teacher learning, are supported. DuFour and Fullan (2103) list these questions as:

1. What is it we want our students to learn?

2. How will we know if each student is learning each of the skills, concepts, and dispositions we have deemed most essential?
3. How will we respond when some of our students do not learn?
4. How will we enrich and extend the learning for students who are already proficient? ( p. 15)

Primarily in response to these key questions, research done on the impact of PLCs on student learning, although limited, suggests that student learning does increase when teachers participate in PLCs (Hord, 1997; Vescio et al., 2008). There is quantitative evidence of statistically significant student gains on standardized achievement tests, as well as evidence of higher test scores in reading and math for students who are in a school with an active PLC program compared to students attending schools without this collaborative learning process (Goddard, Goddard, & Tschannen-Moran, 2007; Louis & Marks, 1998; Strahan, 2003). As recently as 2013, a district-wide study by Williams (2013) on reading gains after the third year of a PLC implementation shows statistically significant improvements at all levels.

Other data also show that PLCs contribute positively to instructional improvement and teacher learning (Hord, 1997; McLaughlin & Talbert, 2006; Rahman, 2011). In schools with a genuine sense of community, there is increased classroom motivation on the part of students and work satisfaction on the part of teachers (Louis & Kruse, 1995). PLCs not only help teachers expand their knowledge base, but they also have a positive impact on their instructional practices (Andrews & Lewis, 2007).

Although there is evidence of the positive impacts of PLCs on student achievement and teacher self-efficacy and instructional practices, few researchers have examined what motivates teachers to initially take part in PLCs and then continue in this process (Louis & Marks, 1998; Strahan, 2003; Supovitz, 2002). Teacher motivation, both in terms of type as well as actualization, is essential for sustaining the practices of PLCs and ensuring that both teacher learning and student learning are taking place. Using the lens of Self-Determination Theory, this study focused on intrinsic motivation within teachers who participate in PLCs, and the impacts upon teacher learning and instructional practices (Deci & Ryan, 1985; Ryan & Deci, 2000). The findings of the study are relevant to teachers and educational leaders because they will provide the greater professional educational community with a better understanding of what motivates teachers to participate in PLCs and how this affects teacher learning and instructional practices. This information will be useful to help strengthen existing PLCs and assist in the composing of new ones. The study also expands the current research related to how motivation, specifically intrinsic motivation, affects teacher learning and promotes the mission, vision, values, and goals of PLCs.

### **Problem Statement**

Professional Learning Communities have become a relatively common professional development implementation throughout the K-12 educational landscape since the early 1990s and, while limited, research supports the assumption that student learning increases when teachers participate actively in PLCs (Vescio et al., 2008).

One of the major assumptions that underlie the PLC process is that teachers need to develop a persistent focus on learning for all students. A corollary to this assumption is that “If all students are to learn at high levels, the adults in the organization must be continually learning. Structures are to be created to ensure staff members engage in job-embedded learning as part of their routine work practice” (DuFour & Fullan, 2013, p. 14). Unfortunately, there is limited research to identify and analyze if and what teachers are learning through their participation in the PLCs and what motivates them to participate, especially if the PLC process and structure is mandated by the district office or school-site principal..

A commonly accepted definition of a PLC is an “ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve” (DuFour, DuFour, Eaker, & Many, 2010, p. 11). However, even the principal author of this definition, and one of the leading practitioners of PLCs, laments that:

...people use the term to describe every imaginable combination of individuals with an interest in education – a grade- level teaching team, a school committee, a high school department, an entire school district, a state department of education, a national professional organization, and so on. In fact, the term has been used so ubiquitously that it is in danger of losing all meaning. (DuFour, 2004, p. 6)

While there may be a common understanding of PLC, there is no universally accepted definition of the concept within the professional educational and research

community, and many scholars have criticized both the broad spectrum of the concept as well as the inconsistent elaboration of the community aspect of the concept (Lomos, Hofman, & Bosker, 2011). In a broad meta-analysis study, Lomos, Hofman, and Bosker (2011) noted the challenge of validating the positive impact of PLCs on student achievement, the ultimate end of the program and process, due to the difficulty of specifying a definition of PLCs that fits different theoretical perspectives. Stoll and Louis (2007) also noted the difficulty of implementing PLCs in secondary schools, where too often specific academic department knowledge takes priority over shared knowledge about best practices and the learning needs of students. There is also a variety of understandings of what community means in a PLC. Little (2002) has distinguished between schools in which the teaching culture is that of a 'traditional community' wherein the work is coordinated to reinforce traditions, and that of a 'teacher learning community' in which teachers collaborate to improve instructional practices and share professional growth. Most contemporary theorists highlight five key attributes of community: (a) shared beliefs and understandings, (b) interaction and participation, (c) interdependence, (d) concern for individual and minority views, and (e) meaningful relationships (Westheimer, 1999). While these attributes do connect with the basic assumptions upon which the PLC process functions, the lack of any common understanding of community makes it difficult to assess the effectiveness of the varied community models and hence the effectiveness of the PLC processes for all participants, especially the teachers. Even with the myriad of definitions of a PLC, how is it that teachers view PLCs and how are they motivated to participate in PLCs?

Are they driven to participate due to external factors such as district or school-site mandates or are they aware of and drawn to intrinsic motives that promote choice, competence, and collaboration with peers? If given the choice, would they participate in PLCs? To address this gap, the current study explored the phenomenon of intrinsic motivation, as understood through the Self-Determination Theory of Deci and Ryan (1985), on teacher learning and instructional practices in PLCs.

### **Purpose of Study**

The purpose of the qualitative study was to identify and describe the motivation of secondary school teachers to engage in their professional learning through their participation in PLCs. The study also sought to explore whether this participation affected teacher learning and their instructional practices. Student learning and academic achievement were not part of this study.

### **Research Questions**

The study will be guided by the following research questions:

1. What motivates teachers to get and remain involved in PLCs?
2. How did teachers believe their participation in PLCs affected teacher learning?
3. Did the teachers perceive their participation in PLCs impacted instructional practices?

### **Theoretical Framework**

The socio-contextual theory of Self-Determination (SDT) served as the theoretical framework for this study (Deci & Ryan, 1985, 2002; Ryan & Deci, 2000).



Self-Determination Theory is a theory of motivation which focuses on the intrinsic tendencies of people to behave in healthy ways. Ryan and Deci (2000) identify three innate psychological needs – autonomy, competence, and relatedness – which when actualized yield enhanced self-motivation (intrinsic motivation) and general well-being. Deci and Ryan (2001) noted that people move toward self-organization and an organized relation to larger social structures and to do so, their fundamental psychological needs for autonomy, competence, and relatedness must be met.

Autonomy is present when the individual believes that she is the perceived origin or source of her own behavior (Deci & Ryan, 1985; Ryan & Connell, 1989). Competence is understood as one feeling effective in one's ongoing interactions with the social environment and experiencing opportunities to exercise one's capabilities (Deci, 1975; Harter, 1983; White, 1959). Relatedness is a sense of feeling connected to others, to caring for and being cared for by those others, and exploring a sense of belongingness with other individuals and with the larger community (Baumeister & Leary, 1995; Ryan, 1995; Ryan & Deci, 2000). Sound mental health and achievement of goals are the primary manifestations of how these needs are being met. Motivation is seen as a multi-dimensional construct, suggesting that individuals can have multiple reasons for engaging in any specific behavior.

Few studies have investigated teachers' motivation for their own learning and for their engagement in professional development programs such as PLCs (Supovitz, 2002; Vermunt & Endedijk, 2011). In the process of engagement in PLCs, a teacher may collaborate with colleagues on a lesson plan simply because she enjoys doing it.

The collaboration makes her feel competent, because she has an opportunity to experience success and joy. The collaboration may make her feel that she can exercise autonomy because she sees this behavior as an expression of the self, and it may promote relatedness, because she feels connected to others and believes that they care for her (Deci & Ryan, 2002). These are all examples of intrinsic motivation, which is essentially the display of behavior because the teacher enjoys the behavior. On the other hand, she may collaborate with colleagues on a lesson plan because the principal or department chair has directed her to do so. This is an example of extrinsic motivation, which is essentially a response to a directed stimulus from another.

For teachers to develop the learning, knowledge, and values that are the positive outcomes of their participation in PLCs, their learning activities must be focused on their engagement in PLCs. Often times teachers do not take advantage of these activities or opportunities, either because their school site does not adequately support conditions for PLC involvement on a regular basis or the teachers are not motivated enough to do so (Gagné & Deci, 2005) For teacher learning to occur, the definitions of PLCs must be expanded to include intentional teacher learning opportunities. These researchers include three additional processes of PLCs which focus on teacher learning: (a) studying teaching and learning, (b) sharing new knowledge through teacher learning while comparing it with current knowledge, and (c) providing opportunities for teachers to discuss and implement new teaching strategies (Cibulka & Nakayama, 2000; Kruse & Louis, 1993). Authentic learning for teachers takes place when teachers are purposively engaged in collaborative

interactions that explore data, student work and instructional strategies for the benefit of school improvement. Self-Determination Theory, with its attention to different types and levels of motivation, can increase knowledge of how to assist teachers to understand their own motivations and promote high quality motivation and the commensurate success of teachers' purposeful engagement in PLCs. Chapter 2 presents a more detailed explanation of Self-Determination Theory within PLCs.

### **Nature of the Study**

The purpose of the study was to explore the motivation of teachers to participate in PLCs and the impact of their participation on their learning and instructional practices. This study primarily used a qualitative method of inquiry. The method of study was a case study. The study focused on one high school, one community of teachers engaged in PLCs, and one specific time period, the fall of 2015. The high school has identified itself as a PLC for approximately the past eight years. The researcher examined qualitative data collected from interviews with PLC members, observations of PLC meetings, school archival materials on the history and process of PLCs in the school, and quantitative data from a survey offered to the entire teaching staff. The teacher observed multiple academic departments as well as varied types of PLC activities. The researcher attempted to involve all teachers in the school in the study. Presented in Chapter 3 is a more detailed discussion for the case study and the methodology for the current study.

## **Definitions**

**Communities.** “Communities spring from common understandings that provide members with a sense of identity and involvement that result in the creation of a web of meaningful relationships with moral overtones” (Sergiovanni, 2005, p. 32). In the particular school setting, community is “A group linked by common interest. Whereas the term ‘organization’ tends to emphasize structure and efficiency, ‘community’ suggests shared purpose, mutual cooperation, and supportive relationships” (DuFour, DuFour, Eaker, & Many, 2006, p. 214).

**Professional Learning Communities (PLCs).** “An ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve” (DuFour et al., 2010, p. 11).

**Self-Determination Theory.** Self-Determination Theory is a theory of motivation which focuses on the intrinsic tendencies of people to behave in healthy ways. Ryan and Deci (2000) identify three innate psychological needs – autonomy, competence, and relatedness – which when actualized yield enhanced self-motivation (intrinsic motivation) and general well-being.

## **Significance of the Study**

Professional learning communities help to create a collaborative school culture that fosters teacher learning, student achievement, and school improvement (Eaker, DuFour, & DuFour, 2002). Studying the impact of intrinsic motivation on teacher participation within PLCs was significant for two reasons. First, it provided teachers

and professional educational organizations with a better understanding of what motivates secondary school teachers to engage in PLCs and how this participation affected teacher professional learning as well as instructional practices.

Second, the studies on teacher motivation on PLC participation are limited in number and scope, and this study added to the research base. The findings may help administrators and teachers in the promotion and sustainability of PLCs in schools.

### **Summary**

Professional Learning Communities are often present in schools in which students are learning and achieving at high levels and academic departments in which teachers are learning at a high level and improving their instructional practices (Little & McLaughlin, 1993; Newman & Wehlage, 1995; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Although not all schools have adopted the PLC process, and while there are numerous critics of the structure and processes of PLCs (Sims & Penny, 2014; Talbert, 2010), the widespread adoption of PLCs and the research done on their influence indicate that a thoughtfully constructed PLC process does have a positive impact on student and teacher learning. Yet, there is a need for further research that describes how teacher self-motivation can sustain these communities and promote school-wide improvement. The purpose of this study was to describe the motivation of secondary school teachers to engage in PLCs and the impact of their involvement on their professional practice. A review of the literature in Chapter 2 will explore more deeply the importance, nature and functioning of PLCs, and suggest how SDT can be

applied in practical ways to examine and encourage teacher learning and improvement of instructional strategies within the processes of PLCs.

## **Chapter Two: Literature Review**

The purpose of the qualitative study was to describe the motivation of secondary school teachers to engage in their professional learning through their participation in PLCs. The study also sought to explore ways the teachers felt this participation affected their learning and their instructional practices. The organization of the review includes an exploration of broad topics related to PLCs followed by a presentation of SDT and its applicability as a framework for the study of teacher participation in PLCs. The review concludes with an exploration of how intrinsic motivation, a principal element of SDT, may affect teacher participation and teacher learning in PLCs.

### **Professional Learning Communities**

Before defining the concept and practices of PLCs and presenting the theoretical framework chosen to frame the evaluation of teacher motivation, it is necessary to define the concept of community and its importance for the professional growth of teachers as well as enhanced learning for teachers and students. Sergiovanni (2005) noted that communities “spring from common understandings that provide members with a sense of identity and involvement that result in the creation of a web of meaningful relationships with moral overtones” (p.32). Sergiovanni (2005) also described a number of reasons for the importance of community within schools:

1. Community helps satisfy the need that teachers, students, and parents have to be connected to each other and to the school.
2. Community helps everyone in the school to focus on the common good.

3. Community provides students with a safe harbor in a stormy sea--a place where they are accepted unconditionally.
4. Community supports learning.
5. Community builds relationships and responsibility.
6. Community connects people to their work for moral reasons that obligate them to respond. (p. 56)

In an educational setting, the focus is not just on individual teachers' professional learning but on professional learning in a community context – a community of learners, and the notion of collaborative learning (Stoll et al., 2006). Most contemporary educational theorists emphasize five key features of community in an educational setting:

- Shared beliefs and understandings
- Interaction and participation
- Interdependence
- Concern for individuals and minority views
- Meaningful relationships (Westheimer, 1999).

In particular, three of these features, (a) interaction and participation, (b) interdependence, and (c) meaningful relationships are most closely linked to SDT and the primary psychological needs of competence, autonomy, and relatedness to teacher motivation in PLCs. The emotional and physical well-being of community members is dependent upon how well the innate psychological needs of autonomy, competence, and



relatedness are being met through participation, in this case, in an educational environment (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2000).

While the concept of community is essential to the positive functioning of PLCs in an educational environment, schools are often challenged when there is not a common understanding of what a community is and does. A school with a culture of ‘traditional community’ in which work is coordinated to reinforce traditions is going to have a very different experience of community than a school in which the culture focuses on ‘teacher learning community’ in which teachers collaborate to enhance practice and share professional growth (Little, 2002). Concerns often arise over just how inclusive the community should be. Should it just be teachers or all staff? Does it engage all departments of the school, or just some (Huffman, 2001)? Nevertheless, when a school community sees itself as a community of learners, the role of the teacher changes from a ‘dispenser of knowledge’ to a learner who engages in collaborative interactions with peers and students for the betterment and growth of the entire school community (Lomos et al., 2011).

**Professional learning communities defined.** As noted in Chapter 1, one of the challenges of understanding the concept of PLCs is that it has been difficult to define, and most practitioners and theorists would agree that there is no universal definition of the concept (DuFour, 2004; Lomos et al., 2011; Stoll et al., 2006). Still, there appears to be a professional consensus that PLC suggests a “group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, growth-promoting way; operating as a collective enterprise” (Stoll et

al., 2006, p. 223). DuFour et al. (2010) defined a PLC as an “ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve” (p. 11). Bryk, Camburn, and Seashore Louis (1999) use the term *professional community* to refer to schools “in which interaction among teachers is frequent and teachers’ actions are governed by shared norms focused on the practice and improvement of teaching and learning” (p. 753). The concept of a PLC is based on a practice and belief of the business sector that organizations can learn. Beginning in the 1980s and expanding rapidly throughout the 1990s, this concept of a learning organization was applied to the world of education and became that of a learning community that would strive to develop collaborative work cultures for teachers (Thompson et al., 2004). Senge’s book *The Fifth Discipline* (1990) and its description of *learning organizations* “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together” (p. 3) was brought into the dialogue and planning of educators. This business concept was soon labeled within the educational field as *learning communities*.

The literature suggests that PLCs are grounded in two beliefs. First, it is assumed that knowledge is situated in the daily experiences of teachers and best understood through critical reflection with colleagues (Buysse, Sparkman, & Wesley, 2003). Second, it is assumed that encouraging teachers to participate in PLCs and supporting them in this process will improve teacher learning and enhance student

learning (Vescio et al., 2008). Advocates and practitioners such as DuFour and Fullan (2013) argue that there are three major assumptions that serve as the core of the PLC process: (a) consistent and intentional focus on learning for students and teachers; (b) a culture of collaboration that promotes student and teacher learning; and (c) a school-wide commitment to the achievement of learning goals that promote improved teacher practice.

Theorists such as Bryk, Camburn, and Seashore Louis (1999) assert that:

Three core practices characterize adult behavior in a school-based professional community: (a) reflective dialogue among teachers about instructional practices and student learning; (b) a deprivatization of practice in which teachers observe each other's practices and joint problem solving is modal; and (c) peer collaboration in which teachers engage in actual shared work. (p. 753)

Based on these fundamental assumptions, there is general agreement in the professional educational community that PLCs share five key characteristics. These are:

- Shared values and vision;
- Collective responsibility;
- Reflective professional inquiry/reflective dialogue;
- Collaboration;
- Group, as well as individual learning is promoted (DuFour & Fullan, 2013; Hord, 2004; Louis & Kruse, 1995; Newman & Wehlage, 1995).

**Impact of PLCs on student learning.** Professional Learning Communities are a means to an end, and even though the purpose of this study is not to examine the impact of PLCs on student achievement, the suggested relationship between student learning and teacher learning is such that in order to understand the impact of PLCs on teacher learning, we must look and consider the impact of PLCs on student learning. While teacher learning is a fundamental purpose of a PLC, the ultimate outcome of that learning must be positively experienced by the student. In a study of the relevant literature of the impact of PLCs on student learning, Hord (1997) summarized the key positive results for students:

- Decreased drop-out rates and fewer classes cut;
- Lower rates of absenteeism;
- Increased learning that is distributed more equitably in smaller high schools;
- Larger academic gains in math, science, history, and reading than in traditional schools;
- Smaller achievement gaps between students from different backgrounds (p. 37).

Strahan (2003) collected data from three schools with a large percentage of low income and minority students where the schools had shown substantial gains on standardized test scores. The findings suggested that the key to the improved test scores was teacher dialogue and collaboration through PLCs. In another study, Goddard et al. (2007) collected data to discover if there was a link between a school

culture of teacher collaboration through PLCs and increased student achievement. The researchers collected surveys from teachers from multiple schools in order to see if the school leadership teams created opportunities for teachers to collaborate through PLCs on activities that would promote improvements in curriculum development, instructional practices, and enhance professional development opportunities that would result in improved teacher learning and thus enhanced student learning. The researchers used testing data from students from these same schools and found that students who attended schools where PLCs were promoted to increase collaboration for school improvement had significantly higher scores in reading and math than peers attending schools without this collaborative work.

Williams (2013) looked into the impact of a five-year, district-wide implementation of PLCs at the elementary, middle, and secondary school level. Teacher interviews revealed that teachers at all levels "...believed that PLCs provided avenues for them to learn and positively impacted their classroom practices" (p. 35). Analysis of district-wide data on student achievement in various subjects showed statistically significant improvement at all grade levels. Williams (2013) asserted that the results of this study support the fact that the collaborative culture promoted by PLCs was a positive contributor to enhanced student learning.

Vescio et al. (2008) reviewed numerous studies regarding the impact of PLCs on student achievement. They found that the teaching culture in schools implementing PLCs was improved because there was an impact on teacher collaboration, continuous learning, and teacher empowerment. The studies did show that student learning

increased when teachers engaged in PLCs (Hord, 1997, Stoll et al., 2006; Vescio et al., 2008)

**Impact of PLCs on teacher learning.** While the current literature on the impact of PLCs on teacher learning is not as developed as that on student learning, it does show that they are effective in promoting the competence and confidence----as well as the learning of the teachers involved (Rahman, 2011). Participation in PLCs does seem to support teacher learning and professional development that is primarily influenced by the needs of teachers as they work toward their individual, department and school-wide goals (Vescio et al., 2008). A number of studies provided evidence of teachers searching outside the immediate school setting to address instructional practice challenges, seeing a clear connection between their opportunities in PLCs and changes in their practices and students learning, and bringing in new instructional strategies which are based in the published research and peer-reviewed literature, and which point to the impact of PLCs on teacher learning. Improved learning for low achieving students, changes in instructional culture, and the strengthening of linkages between student achievement and teacher learning have been cited in these studies to show the impact of PLC participation on teacher learning (Berry, Johnson, & Montgomery, 2005; Bolam, McMahon, Stoll, Thomas, & Wallace, 2005; Engelet & Tarrant, 1995).

The role of reflective dialogue is key to creating successful learning opportunities for teachers who engage in PLC work. This dialogue influences the process of collective inquiry in which teachers are continuously seeking and sharing

learning and acting on that learning with their goal being to enhance their effectiveness as professionals for the benefit of their students (Hord, 1997, 2004). Teachers who are able to talk to peers about meaningful educational and personal matters and feel understood and appreciated are much more likely to engage in productive collaborative activities and contribute honestly to activities that build relatedness (Reis et al., 2000). This professional learning taking place in PLCs is “widely believed to be more effective when it is based on self-development and work-based learning” (Stoll et al., 2006, p. 232). A number of personality and learning theories, such as experiential learning, reflective practice, process knowledge, and cognitive and problem-based professional learning, support this idea (Stoll et al., 2006). Since the 1990s, professional development opportunities for teachers have often been at the forefront of school reform movements. This professional development can take place either through formal learning activities, in which teacher participation is required and credit is awarded, or through informal learning activities which are less structured and rely on the participating teachers to make use of their own time, prep periods or after school, to engage in these activities (Eraut, 2000). Regardless of format, often times, teachers do not take advantage of these opportunities. (Gagné & Deci, 2005; Kwakman, 2003). This is either because their school site does not adequately support conditions for PLC involvement on a regular basis and does not embed PLC activities within the school schedule, or because the teachers are not motivated enough to do so.

**Impact of PLCs on instructional practices.** The research on the impact of PLCs on instructional practices is indeed limited, but some studies have shown that teachers have the opportunity, through their participation in PLCs to acquire and develop instructional practices that will encourage student academic success (McLaughlin & Talbert, 2006; Speck & Knipe, 2005). When teachers engage in collegial activities that promote shared work, they are able to reflect on their work, create new ideas for practices and learn new ways of teaching that may lead to gains in student achievement (Bryk et al., 1999; Little, 2002). Bryk et al. (1999) and Louis and Marks (1998) all emphasized the importance of a school-wide culture of professionalism as a necessary precursor for the creation of school-wide instructional practices that would promote more challenging academic work for students that lead to enhanced student learning. Professional Learning Communities can support the implementation of this culture of professionalism and articulate shared academic values and vision for the benefit of all learners, students as well as teachers.

Hord (1997) noted that “an invaluable resource for teachers is a professional community that can serve as a source of insight and wisdom about problems of practice” (p. 31). The research has shown that PLCs can create opportunities for teachers to learn about what defines good teaching and good classroom practices, which leads to new knowledge and beliefs about teaching and learning. If teachers have a deeper meaning and understanding of the content that they are presenting to students, as well as the varied opportunities for instructional delivery and assessment, they will be better able to help students achieve expectations (Hord, 1997).



A key component in the consideration of the impact of PLCs on instructional practices is the role that reflective dialogue plays in the opportunities for collaboration and deprivatization of practice. On the topic of reflective dialogue, Kruse, Louis, and Bryk (1995) noted:

Growth of the school-based professional community is marked by conversations that hold practice, pedagogy, and student learning under scrutiny...Rich and recurring discourse promotes high standards of practice, and both generate and reinforce core beliefs, norms, and values of the community. In other words, talk is the bridge between educational values and improved practice in schools. (p. 30)

The reflective dialogue that takes place in PLCs, especially around the topic of instructional practices, can help to improve the overall academic atmosphere of the school by creating shared understanding about norms and values in relation to student and teacher learning as well as improved teacher practices (DuFour & Eaker, 1998).

**Challenges to authentic PLC implementation.** The widespread interest in PLCs over the past 25 years is indicated by the number of practitioner-oriented texts that are available to district leaders, school principals and teachers. As noted by Horn and Little (2010), most of the texts have been produced by practitioners such as DuFour, DuFour, Eaker, and Many (2006) or educational researchers such as Hord and Sommers (2008), with a smaller number by university-based researchers (McLaughlin & Talbert, 2006). Coupled with this are the myriad definitions offered for a PLC. In a qualitative study from 2001, Huffman, Hipp, Pankake, and Moller cite

ten definitions in use for PLCs (Astuto, Clark, Read, McGree, & Fernandez, 1993; Calderon, 1998; Hord, 1997; Lambert, 1998; Louis & Kruse, 1995; Louis, Kruse, & Marks, 1996; Mitchell & Sackney, 2001; Senge, 1990; Sergiovanni, 1992; Sergiovanni, 1994). The authors of the study do not even include DuFour, who is arguably one of the most outspoken advocates and practitioners of PLCs. Within the wide scope of the literature as well as the varied application of definitions, it can be difficult for school leaders and teachers, as well as researchers to develop and successfully implement a PLC process that effectively meets the learning needs of students and teachers.

Critics of PLCs share a concern over the lack of a common definition and its implication for not being able to establish a research design and methodology that can effectively evaluate the impact of PLCs on teacher motivation, learning, and instructional practices (Patterson, 2006; Sims & Penny, 2014; Talbert, 2010; Tarnoczi, 2006; Wells & Feun, 2007). Talbert (2010), who has written extensively on the benefits of PLCs, noted that failure by school leaders and teachers to understand the fundamental assumptions and principles of PLCs can stymie the process:

We are beginning to see that enthusiastic efforts to “scale up” PLCs often backfire. Rather than assessing student performance and collaborating to improve teaching and learning, many teacher groups formed through mandates simply comply with the letter of the law and fail to realize improved student achievement. (p. 555)

Tarnoczi (2006) argued that mandated PLCs which did not permit teachers to exercise autonomy in creating mission statements and collaborative communities prevented teachers from producing innovative visions of what an educational community could be. This lack of autonomy, which is essential to the physical and psychological well-being of the teachers (Reis et al., 2000), also prevents teachers from expanding instructional practices to meet the needs of the students they serve. Sims and Penny (2014) noted that an often critical failure of PLCs is when they see themselves as merely “Data Teams” and focus solely on district mandated metrics. To avoid this, the PLC process has to be about more than just the consideration of data; it has to “provide a venue for a rich and deep collaborative discussion of all aspects of the learning environment, teaching practices, and outcomes” (Sims & Penny, 2014, p. 44).

Even with these criticisms, the reviewed literature does not call for an end to PLCs, but rather it calls for PLCs to truly be what their practitioners and advocates say they are. As noted by Talbert (2010):

Professional community building is not just about creating or defining collaborative work for teachers. Nor is it just about using tools for teachers to use in tracking and evaluating their work with students. It is also about addressing normative and organizational challenges for change. (p. 568)

Part of this change has to do with how teachers see themselves and their own learning within the context of their own school and their professional development trajectory. Teachers must view their own development within the context of self-motivation and a

commitment to learn, and by doing so teacher practices and professional learning will have a significant impact on classroom practices (Day, 1999). The impact of self-motivation on teacher learning and instructional practices within the PLC process will be considered within the theoretical framework provided by Self Determination Theory. That self-motivation, which is an essential element of both student learning and teacher learning, will be viewed through the three innate psychological needs of autonomy, competence, and relatedness (Deci & Ryan, 1985, 2001; Ryan & Deci, 2000).

### **Self-Determination Theory**

**Definition.** Self-Determination Theory is a theory of motivation. Ryan and Deci (2000) describe motivation as “energy, direction, persistence, all aspects of activation and intention” (p. 69). A number of studies has confirmed that intrinsic or more internalized forms of motivation are associated with increased interest, engagement, effort, learning, and satisfaction with education in general, and the classroom experience in particular (Grolnick & Ryan, 1987; Ryan & Deci, 2000; Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009). As such, a PLC process that is structured to provide teachers with opportunities to manifest intrinsic motivation will more likely be successful in achieving its goals of enhanced student learning and embedded activities for teacher learning that support the student learning.

Deci and Ryan (1985) identified three innate psychological needs conducive to the development of self-motivation. These are autonomy, competence, and relatedness. Autonomy is present when the individual believes that she is the

perceived origin or source of her own behavior (Deci & Ryan, 1985; Ryan & Connell, 1989). Choice and autonomy enhance intrinsic motivation. For example, if a teacher only attends PLC meetings because it was mandated by the principal, he does so out of a sense of compliance and a low sense of autonomy. However, if a teacher attends PLC meetings, whether they are mandated or voluntary, because he believes that it will improve his performance in the classroom and thus enhance student learning outcomes, he is really doing it out of a sense of autonomy that reflects a willingness to work through challenges that will sustain a desire to learn and to improve instructional practices (Hausman & Goldring, 2001; Ryan & Deci, 2000). Competence is understood as one feeling effective in one's ongoing interactions with the social environment and experiencing opportunities to exercise one's capabilities (Deci, 1975; Harter, 1983; White, 1959). Competence is essential to motivation in the educational world because teachers adopt activities that make them feel that their actions affect outcomes (Ryan & Deci, 2000). Relatedness is a sense of feeling connected to others, to caring for and being cared for by those others, and exploring a sense of belongingness with other individuals and with the larger community (Baumeister & Leary, 1995; Ryan, 1995; Ryan & Deci, 2000). Positive learning environments promote a sense of relatedness for all participants, and constituents, and can strengthen motivation and have a profound effect on school-wide improvements (Ryan & Deci, 2000; Ryan & Grolnick, 1986; Ryan, Stiller, & Lynch, 1994).

In studies on the relationship of the three essential psychological needs to intrinsic motivation it is clear that the subject of the study can affect the impact of the

three needs as well as their relationship with one another (Deci & Ryan, 1985, 2000; Jansen in de Wal, den Brok, Hooijer, Martens, & van den Beemt, 2014; Ryan & Grolnick, 1986). Deci and Ryan (2000) and Ryan and Grolnick (1986) found that autonomy and competence are the most powerful influences on intrinsic motivation, while relatedness often plays a more indirect role. The researchers noted that people often engage in intrinsically motivated behaviors in isolation, suggesting that autonomy and competence are much more primal for manifestations of intrinsic motivation (Deci & Ryan, 2000). Jansen in de Wal et al. (2014) suggested that of the three elements, the strongest connection was between teacher autonomy and intrinsic motivation, with relatedness being essential for both intrinsic motivation as well as any collaborative situations in which extrinsic motivation might play a role. The findings did not show that perceived competence had an impact on intrinsic motivation.

**Application to the school environment.** Most of the research done on the application of SDT to the school environment has focused on the motivation of students. Intrinsic motivation is evident when the natural curiosity of students energizes their learning. This comes about through optimal challenges, rich sources of stimulation and a context of autonomy (Deci & Ryan, 1985). From the perspective of SDT, the central question in the classroom is how to maintain or enhance the intrinsic motivation of students for learning (Deci & Ryan, 1985). Deci and Ryan (1985) cite a number of studies (Eison, 1981; Grolnick & Ryan 1987; McGraw, 1978) that showed that a form of external motivation, external rewards, actually has a negative effect on

both students' learning and the atmosphere of the classroom. One of the most important ways to help students learn is to free them from the domineering controls of reward and punishment. "To approach learning as a task of discovering something rather than learning about it...there will be a tendency for the student to work with the autonomy or self-reward or more properly be rewarded by discovery itself" (Deci & Ryan, 1985, p. 247).

Reeve (2002) studied how autonomously motivated students thrive and how students benefit when teachers support their autonomy. Teachers support this autonomy when they (a) expose students to interesting and worthwhile tasks, (b) promote a student-initiated task, (c) provide flexible environments and opportunities that promote student choice (Reeve, 2002). A study by Beachboard, Beachboard, Li, and Adkinson (2011) that focused primarily on student learning communities, posited that "cohort participation enhances student feelings of relatedness, which leads to improved student motivation and educational outcomes: specifically, students' ability to communicate effectively, think critically and analytically..." (p. 854). The study focused on the element of relatedness as being the catalyst for the development of student autonomy and competence.

**Application to teacher participation in PLCs.** Although the literature is substantial in regards to SDT and its application to middle-school and high school students (Deci, Schwartz, Sheinmam, & Ryan, 1981; Grolnick & Ryan, 1987; Reeve, 2002; Ryan & Grolnick, 1986) limited research has as yet been done in regards to the application of SDT to teacher motivation and participation in PLCs. A study by

Wagner and French (2010) used SDT to describe how teacher involvement within their professional development structure (PLCs were not present here) impacted their motivation for professional growth and change in teaching practices. The study found that teachers were frustrated by their lack of autonomy in creating their own professional learning opportunities. However, the study did find strong relationships between positive co-worker relations and intrinsic motivation, as well as teacher perceptions of successful experiences of competence as seen through enhanced student learning. A recent quantitative study by Jansen in de Wal et al. (2014), using SDT as a theoretical framework, explored to what extent high school teachers are motivated to develop their professional learning, which they defined as “the process by which teachers acquire the knowledge, skills, and values that will improve the service they provide to their students” (p. 27). A summary of the data, gathered from 2,360 teacher survey responses, identified these key findings:

- High perceived autonomy increased the odds of the teacher having higher intrinsic motivation.
- High perceived relatedness only increased the odds of a teacher being in the high perceived autonomy profile.
- Perceived competence did not significantly add to the prediction of having a certain motivational profile.
- The importance of autonomy for all dimensions of motivation, and the importance of relatedness for both intrinsic and extrinsic motivation led to the expectation that these two essential needs would be the most



influential predictors of intrinsic motivation (Jansen in de Wal et al., 2014).

While this study does demonstrate the applicability of SDT to teacher learning and motivation, it does not address the application of SDT to teacher learning through the process of PLCs. More research needs to be done in this field with an emphasis on teacher learning within a community of educators and students.

### **Summary**

Teachers become active participants in their learning when they collaborate in a defined community with their peers to share practices and discover strategies that increase student achievement as well as teacher learning and professionalism.

Although there is not a universal definition for PLCs, there is a consensus that focuses on (a) process, (b) collaboration, (c) inclusivity, (d) orientation to learning and growth, (e) situated learning and knowledge, and (f) participation leading to improvement in learning and practice.

Although PLCs are a relatively new phenomenon, and evidence on their impact is limited, there is research that shows that active PLCs promote an increase in student learning and achievement. What is lacking is the research on the impact of PLCs on teacher learning.

Self-Determination Theory supports the importance of teacher autonomy, competence, and relatedness for the creation of a healthy and successful environment for teacher learning, but little research has been done on its implications for teacher learning within a PLC. However, SDT's focus on motivation, particularly intrinsic

motivation, may serve as an ideal theoretical framework to examine why teachers do or do not participate in professional learning opportunities and offer suggestions for how to engage teachers more fully in PLCs. These gaps in the literature warrant further investigation into what motivates teachers to participate or not participate in PLCs and how this participation affects their professional learning and instructional practices. Chapter 3 includes a description of the methodology employed to investigate the motivational experiences of teachers who are involved in a professional learning community in their high school.

### **Chapter Three: Research Method**

This chapter presents the methodology used for this qualitative study of teacher motivation within their PLCs meetings and activities. It begins with a discussion of why qualitative methodology was the appropriate choice for the study and the role of the researcher in conducting the research. Following is an account of site of the study, sample selection, the data collection procedures used, the need for a focus group to evaluate the sequence and content validity of the interview questions, and the method of data analysis. It concludes with a brief explanation of the ethical measures taken to protect the rights of the participants and a summary.

#### **Research Design and Rationale**

To facilitate this investigation of teacher participation in PLCs and what motivates teacher involvement, the researcher chose a qualitative research design. The qualitative researcher is interested in “understanding the meaning people have constructed, that is how people make sense of their world and the experiences they have in the world” (Merriam, 2009, p. 13). In this qualitative study, the researcher was the primary instrument of data collection, and used interviews, observations, field notes, artifact reviews, and an on-line questionnaire as his data-gathering instruments. Qualitative study findings are richly descriptive and presented as either themes or categories (Creswell, 2014; Merriam, 2009). This design was appropriate for the study because the researcher wanted to use the natural setting of the high school to explore the phenomenon of motivation within PLCs. The qualitative approach for this study was a case study. A case study is:

a design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of a case, often a program, event, activity, process or one or more individuals. Cases are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. (Creswell, 2014, p. 14)

The case study is focused on a single entity or unit around which there are boundaries. For example, a single school, a single group of teachers, a single PLC program. In the case study it is this unit of analysis, not the topic of the investigation, which is the focus of the study (Merriam, 2009). The case study was the school and its PLC activities during the fall of 2015. The school considered itself a PLC. Given the variety of PLC entities on campus, faculty-wide, academic department, and shared courses, all school-wide learning processes and activities were seen as an action of the school. The teachers understood their role as educators within the context and the culture of the school. The school is bounded in this case by the limited numbers of teachers involved and by the three month time frame of the study. The goal of this study was to describe and understand not just what motivates teachers to participate in PLCs in one high school, but also why they do and how they perceive their participation influencing their behavior. Case studies are particularly appropriate for asking “how” and “why” questions, and as such serve as the best form of qualitative research for the study (Merriam, 2009).

## **Role of the Researcher**

Case studies are conducted by researchers who seek not to build a theory but instead to explore an intrinsic interest in a particular entity and who seek to have flexibility in the types of questions they ask and data collection tools they use (Merriam, 2009; Stake, 2005). The researcher is a high school vice-principal at a private, Catholic high school in the Pacific Northwest. He believes that a successful PLC is a professional community of educators, intrinsically motivated by a shared mission and vision of learning, who work collaboratively with each other and with administrators to continually develop their shared practice for the enhancement of learning opportunities for themselves and their students. He believes in the power of PLCs to build community among teachers to serve the academic needs of students as well as the learning needs of teachers and to promote a collaborative environment for teachers and staff that crosses departmental boundaries. The academic standards and benchmarks of his school require that all faculty engage in learning teams where best practices are shared in a collaborative environment to develop curriculum and instructional practices that enhance student and teacher learning (Provincial Assistants for Secondary and Pre-Secondary Education, 2015). His positive experiences with the creation of a PLC program in his school at the beginning of the 2014-15 school year, as well as his brief interaction with the PLC program of another local high school during an accreditation visit in the winter of 2013, inspired his passion for exploring what motivates teachers to engage in PLC work. The researcher is also aware that even with the initial successes of the PLC implementation at his school, there is a

significant number of teachers who either sees PLCs as simply a committee or meeting in which teachers look at data from student assessments and make decisions about instructional practices or as just the latest “fad” in education that the administration has decided to impose upon teachers. The researcher believes that by exploring teachers’ experiences of motivation in their PLCs, he will be better able to collaborate with his teacher-colleagues to build a vibrant PLC presence throughout the entire school and thus create more opportunities for teacher learning and improved instructional practices.

### **Methodology**

**School context.** This qualitative case study involved purposive sampling that had clearly set boundaries and was theory driven (Miles, Huberman, & Saldaña, 2014). The sampling took place at one high school, with one group of faculty participants in PLCs. The researcher chose the high school because it had an established history of a PLC process, a veteran faculty who had participated in the PLC process since its inception, and a principal who led and supported the process. The research site for the study was a high school located in a suburban/rural area within 30 miles of the Portland, Oregon metropolitan area, and that had approximately 1,250 students and a teaching staff of 70. This high school is in the vicinity of the researcher’s own school. The student demographics were: 59% White, 27% Hispanic, 7% Other/Multi Racial, 4% Asian/Pacific Islander, and 3% Black. Six percent of the students were in ELL programs; 14% of the students were enrolled in SPED programs. Sixty-seven percent of the students qualified for the Free & Reduced Lunch program.

The school had a general education staff of 4 administrators, 6 counselors, and 69 teachers, and a general support staff of 66. The general education staff demographics were: 88% White, 8% Black, and 4% Asian/Pacific Islander. Average teacher tenure was 11.6 years. Although there was no written artifact to confirm this, the principal estimated, based on a personal recollection of district directives, that the school implemented PLCs in 2007 as one method for providing teachers with on-going professional development opportunities.

All school site teachers who were involved in the PLC program were invited to participate in the study. The researcher made initial contact with the principal of the study site during the summer of 2015, and after a formal review process by the school district, the principal was able to give him permission to conduct his research. The researcher met all teachers at a faculty-wide PLC meeting in October of 2015 where he was able to introduce himself, explain the study, and advise potential participants that if they took part in the interviews or agreed to be observed in their PLCs, they would need to sign a consent form. There were two consent forms (Appendices A & B). One form was for those faculty members who were willing to be interviewed in face-to-face interviews with open-ended questions. The other consent form was for those faculty members who were willing to have the researcher observe their weekly PLC meetings. If all members of a particular PLC were not willing to sign the consent form, then the researcher would not observe that PLC.

The school had three types of PLCs. The first was the faculty-wide PLC in which all faculty members participated. This PLC met on a monthly basis, or more

frequently if requested by the administration. In the first week of his visits to the school, the researcher observed the faculty-wide PLC twice as they were engaged in meetings for a School Improvement Process survey as well as an exercise in grant writing. The second type of PLC was an academic department PLC. The third type of PLC was a shared course PLC in which there were two or more teachers with the same course. The researcher was granted permission by the principal to observe the faculty-wide PLC meetings, but it was necessary for the researcher to obtain consent from the teachers who would agree to be interviewed or observed in PLCs.

**Teacher participants.** The following criteria for participation were communicated to eligible participants:

- Current involvement in PLCs;
- Willingness to participate in a substantial interview process;
- Willingness to allow researcher to sit in on PLC meetings/activities.

Eight teachers who met this criteria volunteered and participated in the interviews, six male teachers and two female teachers (see Table 1). The teachers contacted the researcher, either in-person on the first visit to the school or through e-mail contact within the first two weeks of the study. The participants had a variety of teaching and non-teaching experience and educational backgrounds. All participants were White. Three teachers taught in the Social Studies department, two teachers taught in the Music department (one of whom also taught in the World Language department), two teachers taught in the SPED/Self Contained program, and one taught in the English department. Teaching experience ranged from 1 year to 24 years. Two of the teachers



also had middle school experience, and six had taught in other high schools, including two who had taught in out-of-state high schools. Teacher identity was protected through the use of pseudonyms.

Table 1

*Teacher Pseudonyms and Characteristics*

Pseudonym	Teaching Experience	Tenure at School Site	Subject Area
Claire	24 years	14 years	Social Studies
Isaiah	8 years	8 years	Social Studies
Will	3 years	2 years	Social Studies
Louisa	9 years	6 years	Music
Ralph	6 years	5 years	Music
Saul	17 years	1 year	Special Education
Phil	1 year	1 year	Special Education
Hank	15 years	3 years	English

**Data Sources**

The primary data sources for this study were a 44 question survey (Appendix D) based on the Self Determination Theory of Deci and Ryan, (Ryan, 1982; Ryan, Koestner, & Deci, 1991), the researcher's developed interview questions (Appendix C), the fieldwork journal of the researcher which included hand-written notes taken at PLC meetings and which reflected the observations of the researcher, and archival data that the school had on the recent practices of PLCs. This variety of data sources allowed for triangulation to establish the internal validity of the study. It is essential

that the data collected matched the reality of the participants in the study as well as the experience of the researcher in conducting the study.

**Survey.** The survey used was the Intrinsic Motivation Inventory and it assessed the subjective experiences of the participants related to a target activity, in this case their participation in PLCs (<http://selfdeterminationtheory.org/intrinsic-motivation-inventory/>; Ryan, 1982; Ryan, Koestner, & Deci, 1991). The survey has been used in a number of studies and has been found to be both valid and reliable with Cronbach alpha coefficients between .76 and .86 for all sub-scales (McCauley, Duncan, & Tammen, 1989). The survey assessed these subjective experiences within seven sub-scales or categories: (a) interest/enjoyment; (b) perceived competence; (c) effort/importance; (d) felt pressure/tension; (e) perceived choice; (f) value/usefulness; and (g) relatedness.

The survey was converted to a Google Survey format and sent as a link in an e-mail to the principal in October 2015 with a request for it to be forwarded to all faculty. The principal forwarded the request to all faculty with the instructions that those interested in participating in the survey complete it no later than the end of November 2015. Thirty teachers responded to this request. In early November, the researcher sent a follow up e-mail to the principal requesting that a reminder e-mail be sent to all faculty prior to the deadline at the end of November 2015. The principal sent out two reminder e-mails during that time.

**Interviews.** A case study requires an interview process that asks participants to share personal stories, and in this case, experiences of what motivate them to be

involved in a PLC (Merriam, 2009). For the current study, the researcher developed his own interview questions to collect data related to themes, ideas, and concepts describing the relationship between teacher motivation and teacher learning (Appendix C). The interview questions were designed drawing from research on PLCs primarily done by DuFour, Eaker, and Fullan (1996, 2004, & 2013), the three research questions, and Self-Determination Theory. These were refined as needed based on a focus group activity (details following). The researcher was aware of his own biases to ensure openness to the experiences and opinions of the participants as well as eliminate any leading questions.

The researcher interviewed eight teachers from five academic departments participating in PLCs who met the criteria stated earlier. In the face-to-face interviews, the researcher met with each participant once in his or her classroom, either before-school, after school, or during a prep-period during the three month study period and followed a semi-structured interview format. Each interview was audiotaped and transcribed by the researcher within two days of the interview. Each interview lasted between 15 and 30 minutes. The questions, which the participants had received via e-mail ahead of their scheduled face-to-face interview in order to give them an opportunity to reflect on their experience of PLCs and the motivation for their involvement, were open ended and were intended to elicit views and opinions from each participant (Creswell, 2014). The researcher used member checks to make sure he was interpreting properly the data that he was collecting. The member checking was done through providing each interviewee with a copy of his/her interview

transcript, via e-mail, and requesting feedback from the participants regarding the accuracy of the transcription. All participants affirmed the accuracy of the transcripts and did not submit any questions.

**Observations.** The researcher observed six PLC meetings during the timeline of the study. At the school site, there were three types of PLCs: faculty-wide, academic department, shared course. The length of the observation was dependent upon the type of PLC that met as well as the length of the PLC meeting. Faculty-wide PLCs were scheduled to meet once a month on the early release day from 1:10-2:00 PM. Academic department and shared course PLCs were scheduled to regularly meet on either Mondays or Fridays from 10:20-10:50 AM. Members of these two PLC types could choose on which day to meet. Tutorial time with students was reserved for the other meeting time. The researcher arrived at the beginning of the meeting and stayed through the entire meeting. The researcher did not audiotape the meetings, due to issues of constraints on time to transcribe the conversations, but did record major activities, conversations, and themes in his fieldwork journal. Because the meetings were short and casual, the researcher was able to capture main ideas, physical descriptions, and exact phrasing as needed in his notes.

**Artifacts.** School artifacts that dealt with the origin, implementation, and practices of PLCs were also gathered from the principal's office and analyzed for data that related to the key research questions. The principal was only able to provide artifacts that dated from 2013, the beginning of her tenure as principal. The researcher reviewed the collection of approximately 125 artifacts and determined that two types

of artifacts, PLC Team “Plan on a Page” and “PLC Cycle and Data Share,” were most applicable to the focus of the research study. There were 23 of these types of documents and all were analyzed for inclusion in this study.

**Focus Group Activity.** Since the researcher was using interview questions of his own design, based on current research on PLCs drawn primarily from the work of DuFour, Eaker, and Fullan (1996, 2004, & 2013), the research questions, and the theoretical framework, it was prudent to convene a focus group to review the sequence and content validity of the questions. One of the advantages of conducting this activity was that it might give advance warning of where the research study might fail or if the interview questions were too broad or confusing (Creswell, 2014; van Teijlingen & Hundley, 2001). Twelve colleagues at the researcher’s own school participated in a focus group format at the beginning of the 2015 school year. The researcher provided the teachers with a copy of the proposed interview questions prior to the meeting. The focus group met over breakfast on September 22, 2015 and discussed the following about the proposed interview questions:

1. Do the questions make sense?
2. Is the order of the questions appropriate?
3. Were any questions too complex or wordy and needed to be broken up into two or three similar questions?
4. Should any questions be added or deleted?

The meeting lasted for approximately 90 minutes and the researcher compiled five pages of notes on the input from the focus group. Most of the conversation focused on

the order of the questions, the need to obtain input from the participants as to how they would define a PLC, cautions about questions that might seem leading, the need to provide examples for the questions that specifically address the three elements of intrinsic motivation (autonomy, competence, and relatedness), and whether to provide the questions to the participants ahead of time so that they could reflect on their possible responses. Adjustments were made in the number of questions and the content of several of the questions based on what was discussed during the focus group meeting.

### **Data Analysis Plan**

The researcher reviewed the four sets of data separately (survey results, transcripts of the interviews, field notes from the PLC observations, and the artifacts) and identified key themes in each. He then compared the four lists and generated a summary of themes and patterns that crossed-over all four data sources and related to teacher motivation within PLCs and the impact on teacher learning and instructional practices. The researcher was looking for patterns in the interview transcripts, survey responses, as well as observations from the fieldwork journal (Miles et al., 2014). During this process, the researcher developed a code for highlighting statements within the transcripts related to the research questions, key literature review themes, and the theoretical framework. Codes are labels that assign meaning to the information compiled during a study. “Codes usually are attached to data ‘chunks’ of varying size and can take the form of a straightforward, descriptive label or a more evocative and complex one (e.g., a metaphor)” (Miles et al., 2014). The researcher chose to use his

own coding system, based on the three key elements, autonomy, competence, and relatedness. These underlie the development of intrinsic motivation, which is at the core of Self Determination Theory. The three primary assumptions in which PLCs are grounded (DuFour & Fullan, 2013; Vescio et al. 2008), and the three core practices that characterize adult behavior in a school-based professional community (Bryk, et al., 1999) were also considered as elements in the coding process, but given the focus of the research questions, the researcher determined that the intrinsic motivation elements could stand alone as a coding system for the four data sources. The researcher looked for words and phrases that appeared in the interview transcripts as well as the archival materials and the written observations of PLC meetings and activities which could be connected to the various categories within the survey questions. The researcher paid particular attention to phrases that were used repeatedly by teachers to describe their experience of PLCs and their level and type of motivation. This repetition can offer insights into the particular culture of the school as well as point to patterns of teacher behavior at the school site (Miles et al., 2014). The researcher also coded his field notes from the observations of PLC meetings and activities and used the above-mentioned coding system to make connections between the data obtained from the interviews and similar data from the observations, survey, and artifacts.

## **Issues of Trustworthiness**

**Credibility and Dependability.** The primary way that credibility (content validity) and dependability (findings are consistent and can be repeated) were established was through triangulation of data, which included questions and responses, observations, survey results, and document review. Triangulation of qualitative data involves “using multiple investigators, multiple sources of data, or multiple methods to confirm the emergent findings” (Merriam, 2009, p. 206). The researcher used transcripts of the interviews, field notes from the observations of PLC meetings and activities, the survey results, artifacts of the PLC program from the principal’s office, and key research identified in the literature review to generate the themes related to teacher motivation within PLCs. The researcher did not limit himself to what had already been found by others in his category coding but was ready to include new categories if needed generated by the research study.

The researcher was also especially attentive to use member checking and rich, thick description to ensure the trustworthiness of the findings (Creswell, 2014; Merriam, 2009). Member checks, which were facilitated through e-mail with the participants, afforded the researcher the ability to seek input from emerging findings from the participants who were previously interviewed (Creswell, 2014; Merriam, 2009). The researcher read through the data after each interview and PLC observation to identify potential themes as well as potential challenges that could be addressed in subsequent interviews and observations. Evidence was used to build a coherent justification for themes (Creswell, 2014; Merriam, 2009). A third method of



establishing credibility was the use of rich, thick, descriptive language to describe what the researcher was finding. The language was also reflective of the saturation of the data and the findings (Creswell, 2014; Merriam, 2009). The fourth method of establishing credibility was reflexivity which is “the process of reflecting critically on the self as researcher, the ‘human as instrument’” (Merriam, 2009, p. 219). The researcher made sure that he examined his biases going into the study so he could bracket them during his data collection. The researcher shared with the participants the details of his background and personal and educational experiences related to PLCs (Creswell, 2014). Since so much of the value of a qualitative study is the interpretations and generalization that the reader brings to his/her analysis, self-reporting of bias is essential to establishing credibility (Creswell, 2014).

The researcher was very aware of researcher bias during his interviews and observations. The researcher used bracketing, the setting aside of one’s perceptions related to a phenomenon, prior to the beginning of the interview and observation process so that the data collected were authentic and were not a subjectively recorded interpretation (Hatch, 2002; Merriam, 2009; Moustakas, 1994). The researcher included a section in his field notes that recorded his thoughts and interpretations during the data collection phase of the project to assist in his bracketing and to add richness to the data.

## **Ethical Procedures**

Prior to the beginning of the study, the researcher requested permission from the administrators of the research site to conduct the study. In a Letter of Cooperation sent to the administration via e-mail, the researcher explained the nature and purpose of the study and how the data collected would be used and disseminated. All faculty were eligible to participate in the study per the criteria indicated in the Letter of Cooperation and email invitation. Participants could choose to withdraw from the study at any time. At the faculty-wide PLC meeting in October of 2015, all faculty were invited to participate and they were also notified of the nature and purpose of the study and the plans for disseminating the results during the initial scripted invitation process and with the Participant Consent Form. Details such as participant names, places, and activities were masked to ensure confidentiality (Creswell, 2013; Moustakas, 1994). All University of Portland IRB guidelines were followed during this research study. Each interview included an explanation of the study's purpose, measures for assuring confidentiality, and procedures for disseminating the results. The researcher used pseudonyms to protect the identity of each participant and insure confidentiality. Teachers who did not participate in the interview process but were observed by the researcher in visits to an academic department or shared course PLC meeting were also given a Participant Consent Form. No individual identification of participants in PLC meetings took place. Responses to the on-line survey were separated into two categories. The first category involved the eight interview participants. The interviewees self-identified on the survey form. The second category

involved the 22 non-interviewees. Their anonymity was protected by the structure of the survey which did not require them to identify themselves in order to complete the survey. Collecting qualitative data requires the researcher to work closely with the study participants; therefore, the researcher took measures to protect the rights and identities of the participants and to ensure the trustworthiness of the study (Creswell, 2014; Moustakas, 1994).

### **Summary**

This chapter described the qualitative case study of teacher motivation, teacher learning, and the impact on instructional practices during their involvement with professional learning communities in a high school that was conducted by the researcher during the fall of 2015. The high school site, location, culture and demographics were discussed along with the general description of the participants, as well as the role of the researcher. The chapter presented the nature and process of the data collection which included face-to-face interviews, observation of PLC meetings, an on-line survey, and the review of artifacts related to PLCs in the school. The primary data analysis method used was using thematic coding categories. The ethical procedures of the study were also reviewed. Following is Chapter 4, which presents the findings gathered from the interviews, surveys, PLC observations, and artifacts, and the measures used to ensure the quality of the study.

## Chapter Four: Results

The purpose of this qualitative case study was to describe the motivation of secondary school teachers to engage in their professional learning through Professional Learning Communities (PLCs). The study also sought to explore whether this participation affected teacher learning and their instructional practices. The three research questions addressed in this study were:

1. What motivates teachers to get and remain involved in PLCs?
2. How did teachers believe their participation in PLCs affected teacher learning?
3. Did the teachers perceive their participation in PLC impacted instructional practices?

Data collected and analyzed for this study included survey results, observations of school site PLCs, school artifacts related to PLCs, and interviews. To analyze the data thematically, the researcher chose to use his own coding system, based on the three key elements, autonomy, competence, and relatedness. These underlie the development of intrinsic motivation, which is at the core of Self Determination Theory. The three primary assumptions in which PLCs are grounded (DuFour & Fullan, 2013; Vescio, Ross, & Adams, 2008) and the three core practices that characterize adult behavior in a school-based professional community (Bryk, et al., 1999) were also considered as elements in the coding process. Given the focus of the research questions, the researcher determined that the intrinsic motivation elements could stand alone as a coding system for the four data sources. The three fundamental

human needs of autonomy, competence, and relatedness provided inclusive lenses in which to analyze the activities of teachers at all levels of PLC involvement in their school through the use of all data sources. In this chapter, the researcher presented an overview of the particulars of the four data sources – survey results, school site PLC observations, artifacts, and participant interviews. The data were then triangulated to ensure the data sources supported the same findings. These are presented around the three research questions. The researcher concluded the chapter with a summary of the analysis of the key data presented.

### **Survey Results**

Given the in-depth nature of the interviews, it was not possible to interview all 69 teachers who make up the teaching staff at the research site. To gather information on as many teachers as possible, a survey was offered for all teachers to complete (Appendix D), using Google Survey. As noted in Chapter 3, the original plan was to introduce the on-line survey to the faculty at the introductory meeting and ask them to complete it at the meeting, using either their iPads or laptops. However, just prior to arrival at the school site on the first day of the research, the school principal informed the researcher by e-mail that there would not be time at the meeting to complete the survey. The meeting agenda, which involved work on the School Improvement Process as well as an exercise in grant-writing, could not accommodate the 10-15 minutes necessary for all faculty to complete the survey. The researcher would only have five minutes to introduce himself, present his research proposal and invite faculty to participate in the on-site interviews, PLC observations, and the on-line survey. The

principal offered to share an e-mail link to the survey with the faculty and asked the researcher to encourage the faculty to complete the survey at their convenience. Thus, at the first meeting, the researcher introduced the study to the teaching staff at a faculty-wide PLC meeting. The researcher introduced himself, delineated the purpose and the process of the study, invited teachers to participate in the interviews and take part in the on-line survey. Consent forms were also made available to the teaching staff. Thirty teachers completed the survey during the time frame of the on-site study, October to November, 2015. The school principal wrote and sent two e-mail reminders to the faculty during this time period. The eight teachers who agreed to be interviewed contacted the researcher within the first week of the on-site study.

Survey results were analyzed by subscale. Table 2 depicts the subscale means and standard deviations for the eight teachers who were interviewed as well as 22 additional teachers from the school. The mean ranges for each subscale were 1-7, from not at all true to very true.

Table 2

*Between-Groups Differences for Intrinsic Motivation Inventory Survey (n=30)*

Category	Interview Group (n=8)		Control Group (n=22)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Interest	5.23	1.58	3.89	1.92
Competence	5.87	1.17	5.31	1.31
Effort	5.87	0.84	5.19	1.44
Pressure	2.32	1.28	2.63	1.92
Choice	3.92	1.35	3.17	1.59
Value	6.47	1.02	5.20	1.82
Relatedness	5.86	0.89	5.18	1.59

The researcher used a Two-Way ANOVA to analyze the survey data for the two groups. For the purposes of this study, the survey data showed that when the interview group and the control group were compared by each category, there was not a statistically significant difference ( $F = .712$ ,  $p$  value = .640), indicating that responses of the interview group were consistent with the control group. For the eight interviewees the Cronbach alpha coefficient was .88, and for all 30 participants the coefficient was .94. Both coefficients are on the high end of the Cronbach alpha range, but that is to be expected on this survey given the repetition of a number of the questions. The coefficients do show a high degree of consistency among the survey scores of the teacher-participants.

The high scores in the categories of *Interest, Competence, Effort, Value, and Relatedness* suggested that teachers were engaged in their PLC work, found value in it, and were able to connect with peers. The lower scores in the categories of *Pressure and Choice* indicated that teachers did not feel overly pressured to participate in their PLCs, but they did question just how much choice they had in selecting their PLC group and nature of work in the PLC. The data also showed that of the eight interviewees, two had scores that were consistently lower than the other interviewees; Will and Hank. Will was a young and idealistic teacher who was frustrated with what he perceived to be the lack of flexibility within the PLCs to better address the specific learning needs of individual students. Hank, a veteran teacher, was struggling with classroom management issues that he felt were exacerbated by the rigid focus of the PLCs on state standards and department specific learning outcomes. Their lower survey scores were also consistent with their interview responses. Specific subscales were applied to discussions of results in each of the three research question sections, supporting the process of triangulation that uses “multiple sources of data and methods to confirm the emergent findings” (Merriam, 2009, p. 206). Data from interview group survey results were consistent with data from interviews and observations of PLC meetings.

### **School Site PLCs**

The school implemented PLCs almost nine years ago as one method for providing teachers with on-going professional development opportunities. As noted by the school site principal:



I honestly do not know the start date for PLCs. I know that in my middle school we were starting the work/conversations and participating in trainings around 2007ish. This school could have started earlier. I think the big push came with late starts/early releases, which I think came along in 2007 (site principal, personal communication, November 5, 2015).

Professional Learning Communities are organized as faculty-wide (all teachers and administrators), academic departments, and shared courses. The faculty-wide PLC meets on a monthly basis, and the department and shared course PLCs meet every week, on a rotating basis. The researcher observed six PLC meetings. Two of the meetings were faculty-wide and addressed a grant proposal at the first meeting and the school improvement plan at both meetings. Two of the PLC meetings involved the Social Studies Department. One of these meetings took place with six department members present, and the other was specific to one of the academic courses within the department (shared course) and involved three teachers. The researcher observed a meeting of the Music Department PLC which involved two teachers, and a meeting of three teachers who work in the Special Education program (SPED). The meetings were scheduled to last between 30 to 45 minutes, depending on whether they were faculty-wide PLCs, department PLCs or shared course PLCs.

### **Artifacts**

The school site's principal had written artifacts relating to PLCs dating back to September of 2012 (start of tenure as principal). These were kept in binders in the principal's office. The artifacts represented the work of all the school's PLCs and were

primarily designed to ensure accountability within the context of measuring student learning and student growth as well as documenting teacher practices. There were two primary sets of artifacts, whose structure and usage was based on “trainings the district sent us which were based on the work of DuFour” (site principal, personal communication, October 27, 2015). The first was PLC Team Plan on a Page. This set contained artifacts from all academic departments as well as student support programs such as SPED. Each PLC was responsible for submitting a written report on a monthly basis. Typically, the report of the department PLC was submitted by the department chair. The report of a shared course PLC was submitted by a member who was selected by the PLC members. This was the current instrument that was being used by PLCs to reflect upon their interactions with colleagues and students and to plan instructional practices. “Plan on a Page is more of a summary/accountability piece so we can know what is going on in PLCs since we could not get to everyone, every time” (site principal, personal communication, December 30, 2015). The key elements of this artifact were:

- What is the specific learning target or standard to be addressed?
- What assessments are to be used to assess student learning and/or data/work samples to be brought for review (How will we know when students have learned it?)?
- What are the next steps/action plans based on assessment results? (How will we respond when they do not learn? How will we respond when they already know it?)?

- What outcomes do we expect and what evidence will we bring to the next meeting?

The second set of artifacts was the Cycle and Data Share. As noted by the site principal, “The Data Shares were a chance for teams to show the work that they were doing and lessons learned” (personal communication, December 30, 2015). This set was for one year, 2012-13, before being replaced in the 2013-14 school year by Plan on a Page. The Cycle and Data Share focused on the following activities and reports:

- Teachers will have the opportunity to share their evidence of student learning with their colleagues;
- What were the learning targets (what did you want students to learn)?
- What were the pre and post assessment data and how did you interpret the data?
- What interventions and differentiation strategies were utilized?
- Reflections on what you learned and would do differently;
- What factors do you think influenced student performance?

The researcher reviewed the two binders in their entirety on November 4, 2015 and determined, based on content responses to the purposes of the artifacts that out of more than 120 artifacts, there were 23 reports that were of value for the triangulation of data. The artifacts were selected because they shed light on the research questions, primarily focused on student growth and student learning, and also referenced teacher practices and learning.

## **Interview Participants**

Eight teachers volunteered and participated in the interviews, six male teachers and two female teachers. The participants had a variety of teaching and non-teaching experience and educational backgrounds. All participants were White. Three teachers taught in the Social Studies department, two teachers taught in the Music department (one of whom also taught in the World Language department), two teachers taught in the SPED/Self Contained program, and one taught in the English department.

Teaching experience ranged from 1 year to 24 years.

Two of the teachers also had middle school experience, and six had taught in other high schools, including two who had taught in out-of-state high schools. Survey results clearly pointed to two distinct groupings within the interviewee cohort, which were supported by interview transcripts, research observations, and field notes. A grouping of six teachers had very consistent mean scores and a generally positive attitude toward the structure and function of PLCs in their school. The other grouping of two teachers (Will – three years teaching and two years at the school; and Hank – 15 years teaching and three years at the school) had much lower mean scores, in comparison to the other six, and a generally less positive attitude toward the structure and function of PLCs in their school. Teacher identity was protected through the use of pseudonyms.

## **Research Question One**

The first question addressed in this study was, “What motivates teachers to get and remain involved in PLCs.” Data were gathered through interviews with teachers,

observations of PLCs, review of artifacts, and analysis of on-line survey results provided by the eight interviewees and 22 other teachers. The interview questions that were most applicable to this question were:

2. What excites you about teaching? What do you find challenging about teaching?
3. How would you define a PLC within your school context?
5. Were you trained to implement/participate in a PLC? If so, how?
6. Why did you join your PLC?
7. What is the focus of your PLC?

While all three elements of self-motivation, autonomy, competence, and relatedness are applicable to this research question, the role of autonomy, which is present when the individual believes she is the perceived origin of her own behavior (Deci & Ryan, 1985; Ryan & Connell, 1989), will be a focal point of the discussion. The survey categories of *Perceived Choice* and *Pressure/Tension* were most applicable to the consideration of the presence of autonomy in the consideration of what motivates teachers to join PLCs and continue to involve themselves in PLC work. The elements of competence and relatedness were also involved within this context, but to a lesser degree than autonomy. Their presence is more pronounced in Research Question 2 and Research Question 3.

For approximately the past nine years, high schools in the school district, of which the research-site school is a part, have been required to support a PLC program. At the school-site, the PLC structure is organized at the faculty-wide level (all teachers

and administrators), at the academic department level, and at a shared course level within a specific academic department. As noted above by the school site-principal, school-site artifacts that are used to monitor teacher participation and production in their PLCs, such as Plan on a Page, are based on “trainings the district sent us [to]which were based on the work of DuFour” (site principal, personal communication, October 27, 2015). The focus of PLC work is on student learning and student outcomes, with the assumption that teacher learning is also taking place. There is no evidence that teachers had any autonomy to form a PLC that existed outside of these three levels or whose goals go beyond the focus of PLC work as identified above. When asked about why they joined their PLC, Interview Question 6, three of the eight participants specifically indicated that they were assigned to their PLC. They were adamant that they had no autonomy in this process. They used phrases such as “assigned,” “forced to,” “no choice,” “it’s departmental.” Two of these three respondents are those who are most critical of the PLC program. Isaiah, who was typically very positive about the role of PLCs at his school, and matched the other interviewees concerning their responses to choice, offered some insightful thoughts on what PLCs could be like if teachers had more autonomy in regards to the composition of the PLCs:

Well, we’re assigned essentially. The one thing I have often wondered about PLCs is if they might be better if we had some choice in the matter. I have wondered what it would be like to work with other people. We are getting a lot of PLC time this year, and eventually if every PLC was really, really strong, I

feel like we could mix up the PLCs and our PLCs might change in that they might find things that we are interested in as a staff and it might unite us as a staff in our PLCs. But at this time, I don't see that because being involved in a PLC means you are involved with your curricular team, you are involved with planning so there is a level of togetherness there just in the setting, but I also think that if PLCs were to evolve I wonder if teacher generated groups might start to solve some other cross pollination ideas? We always have opportunities to work with other teachers. I have worked with the video teacher before, and with other people outside of my PLC. But it always comes down to "Geez, I would like to do that, but we have this other PLC going" and we have to make sure that all teachers are assessing what we should be assessing. But if we were able to get outside those building organized PLCs, I wonder what that would look like? I bet it would look different. But then would the administration believe that this was a fruitful endeavor for them to get information from? I am not so sure they would. So I wonder if there is a more free-wheeling way that PLCs could be introduced so that we could get that cross pollination going through education rather than just dealing with people who are in our own subject area?

The other five participants offered responses that, while not asserting they could choose to be or not be in a PLC, seemed to focus on teachers being able to have some flexibility in choosing the specific group with whom to work. As Louisa explained:

Well, no one told me “you must go here or you should not go here.” I am in two departments, and when we have weekly time during the school day and are scheduled on the same day, I alternate as applicable or send notes. I feel like if I wanted to go into any other PLC, it would just be a matter of me asking the PLC if I could come observe or if I had a question like, “Hey I feel our content areas overlap here; could I come see what you are doing?” I think that would be fine.

Ralph, who is also a colleague of Louisa in one of her academic departments, noted, “Originally, I had nowhere else to go. Sorta by default, the closest thing was Fine and Visual Arts. Last year another full-time teacher came into the department and so we came together as a PLC.” Claire, who has been at the school since 2001 talked about the lack of PLCs when she arrived and remembered that she “formed my own based on subject content.” Phil and Saul, who work with similar special needs students, naturally came together in a PLC because, “We work in self-contained programs.” While all participants have acknowledged that PLCs are generally constructed around academic departments and content areas and participation in a PLC was expected, there was a divergence of opinion as to how much autonomy teachers had in becoming part of a *particular* PLC.

Data from the other three sources – survey, observation, and artifacts – supported the teacher’s assessment of their lack of autonomy in choosing in which PLC to participate. Per the district office directive, and supported by the school-site principal, teachers were required to participate in an academic department PLC as well



as a shared course PLC. In the survey (Table 2), the responses to the *Choice* category made it clear that while participants believed they have some autonomy in what they do in the PLC, or if they taught more than one course, they could choose, on a weekly basis, in which one of the shared course PLCs to participate in, they did not believe that they had autonomy in choosing in which PLC to participate. Also, in the *Pressure* category, the two outliers indicated that they felt anxious and pressured to be in their PLCs. The results from the survey of the 22 other teachers also indicated that the categories of *Choice* and *Pressure* were the lowest scored as well as prescriptive of a lack of autonomy in choosing in which PLC to participate. Observations of the PLC meetings affirmed that teachers attended meetings during assigned times, either by faculty-wide, academic department or shared courses. The researcher conducted six observations of PLC meetings. While the teachers did not have any autonomy in terms of setting the agendas or choosing the materials, they did exercise autonomy in terms of how they chose to use their time and respond to the task at hand. Elements of autonomy and relatedness (collaboration) were observed throughout all of the meetings.

In the two faculty-wide meetings the agenda addressed the School Improvement Process (SIP) and grant writing. At the first meeting, which took place after school and was scheduled for one hour, teachers sat by academic department and completed assignments on their iPads as directed by the principal and two vice-principals, who circulated throughout the room and monitored activity. Some teachers worked together to complete the assignments and some worked independently. After

45 minutes, academic departments were asked to transition into department PLC time. The principal did not offer a summation of the faculty-wide PLC work. When the transition to department PLCs took place, the researcher, upon invitation from the Social Studies Department chairperson, observed the meeting of said department. The focus of the meeting was on developing a synthesis assignment for sophomores. There were six members of the department present, three females and three males. During the 15 minute meeting, in which there was discussion about claim, evidence, and synthesis; the positive performance of the sophomore class; Common Core; and academic eligibility, all members participated, and the researcher noted 26 distinct responses contributed by all of the members present. Five of the teachers were using their iPads to support their contributions to the discussion. The atmosphere in the PLC was relaxed and engaged, and teachers showed respect to each other, primarily manifested by active listening and follow-up questions or comments that clearly showed they had listened to what the previous speaker had said. In the faculty-wide PLC, there was no manifestation of any behavior that would explain what motivates teacher participation in their PLCs or what keeps them motivated. The researcher did not observe any autonomous behavior on the part of the teachers. The principal assigned tasks, and the teachers completed the tasks in the allotted time. There were several examples of collaboration (relatedness) as a number of departments, Social Studies, Math, and Science worked together in their PLCs and submitted common responses to the assignment. In the Social Studies Department PLC meeting, the teachers worked together harmoniously per the direction of the chair. It could be

argued that autonomy was present when teachers chose to participate or not participate in the discussion. The fact that all six department members did participate supported a presence of autonomy within the group, at least in terms of how teachers chose to respond to the team activity. The active listening which the researcher observed could be seen as a manifestation of relatedness.

The second faculty-wide PLC meeting, which took place after school two days after the first meeting and was part of a special schedule to complete the initial round of work for the SIP, focused on a staff survey. Teachers were not asked to sit in their PLCs, and as such they were scattered through the conference room. The principal instructed the teachers that they needed to complete a new survey for the SIP and, once completed, they could leave the meeting. Teachers could work independently or in their PLCs. Most teachers did choose to work independently and did leave upon completion of the survey, but several teachers did continue to work together in their PLCs (Math, Science, and Social Studies) and submitted a common response to the survey. The choice to work independently or in PLCs reflected the support of the principal for autonomy amongst the teachers, and the self-selected PLC work reflected both autonomy and relatedness, especially as manifested by the submittal of common responses to the survey.

The other three observations involved the Music Department, the Social Studies Department, and the SPED program. The Music Department has three teachers, two of whom are full-time in the school building, one male and one female, and one female who works in a number of district high schools. Only the full-time

teachers were present at the PLC meeting. Both of these teachers also participated in the interview process. The Music teachers appeared not to have a set agenda for their meetings and based their work on challenges they addressed with students on a day-to-day basis. This mirrored the interview data which strongly suggested that both members felt a great deal of autonomy in their PLC foci and collaborated together in such a way as to fulfill all elements of relatedness, which is present when the participants have a sense of feeling connected to others, to caring for and being cared for by those others, and exploring a sense of belonging with other individuals and the larger community (Baumeister & Leary, 1995; Ryan, 1995; Ryan & Deci, 2000). The meeting, which took place during the regularly scheduled PLC time on Monday between 10:20-10:50 AM in the Music Room, was delayed for a few minutes because one of the teachers needed to address a behavior management issue, and so the researcher and one teacher had an opportunity to speak of challenges she faced in another academic department in which she taught part-time, and in which she felt that there was not the degree of autonomy and relatedness that existed in the Music department. Upon the return of the teacher, the PLC discussed student growth goals, national board certification, student behavior issues, new graduation requirements, and state standards. Both members were engaged in the conversation, and no one dominated the conversation. The topics of discussion were consistent with the interview data responses that addressed the focus of the PLC work for the year as well as content and knowledge acquisition.

The observed shared course PLC was within the Social Studies Department.

There are three department members, two male and one female, who teach a course on current world events. Two of the teachers have been in the department for more than five years, and the other teacher is in his second year at the school. The veteran teacher participated in the interview process. The focus of the meeting was on the department mandated work around teaching claim, evidence, and synthesis in a research essay. The teachers focused on a rubric that one had created for the assignment. Two of the teachers were consistently engaged in the conversation. One of the teachers, a veteran of the department, had his feet up on the desk and spent most of the meeting looking at news stories about ISIS on his iPad. Still, there was balanced input from all three teachers, and there was an agreement on adopting the rubric, and the least experienced member of the group was able to guide some of the conversation. There was a free flow of conversation during the meeting which indicated a degree of autonomy amongst all the participants.

The final PLC meeting observed by the researcher was that of three members of the SPED staff (the fourth was out sick), two male and one female. The female teacher has been at the school for five years, and the two males were in their first year at the school, although one has been teaching for almost 20 years while the other male teacher was in his first year of teaching. The two male teachers took part in the interview process. The teachers met for 30 minutes and the researcher noted 49 statements made during the meeting, with the majority of them being made by the two most experienced members of the PLC. The focus of the meeting was on reviewing

data from the two previous months on student progress and behavior. A substantial part of the meeting addressed student behavior and the managing of student behavior. Given the particular nature of the SPED program, the conversation reflected a keen sense of relatedness, and each member offered support to the individual programs that each one is responsible for at the time. One of the veteran teachers recommended a TA to the new teacher so that he could better address his student with the highest behavioral needs. This supported the need for PLCs to focus on content and knowledge acquisition.

The artifacts confirmed that the primary work of the PLCs was to develop learning targets for students, create an assessment that could be shared with other PLC members, suggest next steps, and predict outcomes. The artifacts did reflect teacher autonomy in terms of their responses to the key questions of the PLC assignment, but there was no evidence that the teachers in the core academic departments – English, Math, Science, Social Studies - did discuss a different topic or plan a different activity for the meeting, unless the essential work of the meeting was completed. In non-core departments, such as Music and SPED, there did appear to be more flexibility and autonomy on the part of the teachers in terms of topic selection, especially as it reflected the need to respond to immediate needs of the students – preparation for an upcoming concert or behavior management. The district and school-site dictated record-keeping and accountability instrument mandated a non-autonomous approach to whether a teacher could or could not attend the meeting. Records indicated that one of the teachers had an official role as a recorder, and all names of teachers who

attended the meeting were recorded on the form. The instrument indicated and what materials, such as work samples, assessments, data reports were brought to the meeting.

Although it is clear from the various data sources that teachers did not exercise autonomy in whether they could or could not chose to be in a PLC or attend or not attend a meeting, there is evidence that demonstrated that teachers had varying degrees of autonomy, and thus varying degrees of intrinsic motivation, when it came to how they would respond to the academic work that would and could be done within the PLCs, and how they would use their time if the scheduled work for the PLC was competed prior to the conclusion of the meeting.

The survey results clearly showed that there was a high degree of *Interest* on the part of the teachers in regards to their participation in the PLCs. The teachers also scored high on questions related to *Competence* (their assessment of their work in the PLCs) and *Effort*. Their highest score was associated with the *Value* category. Even amongst the two outliers in the interview group, there was an acknowledgement that their PLC work could be of some value to all the teachers.

Participant responses to Interview Questions 2, 3, 5, and 7 provided insights into how participants viewed their degree of autonomy within the PLC structure and perhaps explained their varying levels of motivation when it came to what keeps them involved in their PLCs.

What excites and challenges teachers about teaching, Interview Question 2, did not provide any insight into how a teacher might see her participation in PLCs, but

how a teacher responded to the question about training and how the teacher understood the role of the PLC did impact how she viewed her participation in PLCs. Seven of the eight teachers identified working with students and making a difference in their lives as what most excites them about teaching. Louisa emphasized her role as an “advocate for students.” Hank referred to “Eureka moments” in the classroom, and Will spoke about “affecting change in a positive way.” In terms of challenges, each teacher cited a different challenge that they faced. Louisa was most concerned about the fact that “there is not equity in resources for the students, and at school so many of the students have not had their most basic needs met.” Hank and Claire both saw managing student behavior and being able to motivate students as their biggest challenges. Claire reflected:

The students. You have to figure out how to be yourself but also to make this a place where the students want to come. You have to motivate them to want to learn, motivate them to follow directions, set up a relationship where they give a damn about you and want to come here.

Saul may have summed it up for all of the participants when he said, “The biggest challenge is reaching all of the students and giving them the support they need.”

Although this statement speaks to one of the core assumptions about the essence of PLCs, namely a focus on learning for all students, none of the participants cited their participation in PLCs in relationship to their response to this interview question. In general all of the teachers were excited to be educators and did not see their challenges as being so significant that they would not continue in their current roles.



Seven of the eight participants offered wide ranging definitions of a PLC, Interview Question 3, and one could not define it but was able to share a positive experience of participating in one as a student teacher. In general, the group focused on common teaching practices and the sharing of data for analysis. Louisa and Saul were the only two to use the word, “collaborate.” Saul also noted that a PLC is a “professional learning group of people who can work together.” He was the only one to use the word, “professional.” Ralph stated that, “PLCs are small communities meeting together with the idea of sharing data, with the idea of driving decisions through data analysis.” He was the only teacher to use the word, “community.” Will spoke to this variety of definitions when he said, “It’s hard to narrow down exactly what a PLC is. It’s a wide range of things that it is and can be used for, but I do not think there’s one specific definition.” Hank defined a PLC as, “It’s a group of my colleagues and me, meeting together, and we discuss our own learning within the context of our profession.” Evidence from the school-provided collection of artifacts supported the administration’s communication of a definition of a PLC to the faculty, but the lack of a common definition of a PLC within the school posed challenges for maintaining a school-wide culture of support for the efficacy of PLCs and the meeting of the fundamental goals for student learning.

All of the participants agreed that there has not been any purposeful school-wide training, Interview Question 5, in how teachers should implement or participate in PLCs, but some acknowledged that they had taken advantage of periodic

professional development opportunities established around PLC meetings. As Isaiah explained:

Well, to go back to the idea that the administration does a really good job of easing us in, this is what we do. We have been trained. The training comes through participating in the PLC. We organize everything through the PLCs.

The good thing therefore about the organization is that it feeds itself.

Ralph, who has been at the school for five years, recalled that, “At first, we were not trained. Last year the principal started laying out some expectations of what we were supposed to do.” Still, the majority of the participants stated that there has been no formal training, and that any professional development around PLC implementation and participation has been informal or though PLC training at the district level. Hank responded with a one word answer, “No.” Will emphasized that he thought without a common definition of what a PLC is supposed to be, how can there be any specific training. Both Hank and Will had the lowest scores in the seven categories of the survey, and this was reflected in their verbal responses.

The focus of PLC work, Interview Question 7, was essentially divided into three categories. Six of the teachers cited curricular goals such as “claims and evidence,” “scope and sequence,” and “Common Core.” Two of the six also cited the need to develop “student engagement” and “student growth.” The two teachers who work with special-needs students focused on a behavioral goal of “reducing undesirable behavior” rather than on a curricular goal. Consistent throughout the responses was the emphasis on collaboration. Phil noted that:

So what I and the other members of the PLC were able to do was that we said, ‘So, since we have to do the Teacher Performance Evaluation Program (TPEP), it’s not just new teachers, but all teachers have to do it.’ I said, ‘Hey this is something that we should all be collaborating on.’ This is what we are going to use our PLC time for, to meet this goal.

Louisa reflected on the fact that although she and another teacher in her department teach different content, “We are trying to collaborate. Sometimes that means creating new lessons, sometimes it’s just us trying to manage the department as a whole, looking at scope and sequence.”

Evidence provided by the participants affirms that the focus of PLC work is collaborative in service to the needs of the students. Although it does not appear that the core academic departments have much autonomy in the focus of their PLC work for the year, it did appear that the PLCs had autonomy in terms of what tools or assessments they would use to meet the overall learning goals for the students.

Researcher observations confirmed that no training went on during the time of the study, but the regularly scheduled PLC activities, the presence of agendas and documents like Plan on a Page, and the conversations that took place during the various PLCs meetings, demonstrated that teachers had autonomy in the ordering of the agenda and considering options for assessment tools and work samples. The faculty-wide PLCs were definitely narrowly focused and strictly orchestrated by the administration, with limited faculty input. Department PLCs and shared course PLCs displayed more autonomy in the level of participation as well as the sharing of

responsibilities for who would lead the meeting and report minutes on the Plan on a Page. Artifacts included in the principal's binder indicated an attempt to establish a consistent definition for what a PLC is. One titled "Curriculum Team Time" was part of the PLC program in 2013-14 school year and it stated a PLC:

IS	IS NOT
About discussing common standards	Individual planning time
About discussing pacing	Individual grading time
Time to analyze data	Time to make copies
Time to discuss and identify interventions	Time to check e-mail
About efficiency and interdependence of the team	Operational meetings

This artifact supported the interview data in which teachers reflected on the fact that while there was not an organized training program for PLCs, some, like Phil, noted that "everyone seemed to know what they were and how to do them."

Although teacher participation in PLCs was mandatory, the data, particularly from the survey (Table 1), suggested that the teachers did not resent being involved in their PLCs and found value in the time they had to work with colleagues during the weekly PLC meetings. All elements of self-motivation, autonomy, competence, and relatedness were present to some degree in the involvement of teachers in their PLCs. Survey results, especially from the *Value* subscale, and interview comments suggested that even if PLC participation was not mandatory, most of the teachers would find it beneficial, both for their learning and the learning of the students, to take part in their PLCs.

**Research Question 2**

The second question addressed in this study was, “How did teachers believe their participation in PLCs affected teacher learning?” The data supported the general response that the majority of teachers interviewed did believe their participation in PLCs affected their own learning. The interviewees cited their interaction with their peers (relatedness) as the primary influence on this learning process, regardless of whether it was formally promoted by the PLC activities or informally supported in an environment that is influenced enough by the PLC structure to encourage teachers to engage with colleagues on their own times. The interview questions that were most applicable to this question were:

8. Does participation in your PLC assist you in content acquisition and knowledge?
10. Does participation in your PLC support collaboration with teacher-colleagues?
13. Has PLC participation changed the way you approach learning opportunities and professional development?
14. Do you feel that your PLC participation has positively impacted your own learning and/or the learning of other colleagues?

All three elements conducive to the development of self-motivation; namely, autonomy, competence, and relatedness, were evident in the data gathering process that addressed this research question. Also, while the primary focus on PLC work is student learning, DuFour and Fullan (2013) noted that, “A corollary assumption

stipulates that if all students are to learn at high levels, the adults in the organization must also be continually learning” (p. 14). Evidence of this learning, both formal and informal, will be presented in this section.

As this research question focused the attention of the teachers on their own learning and not on their students or the school, the three most applicable categories for analysis in this section from the survey were *Interest*, *Competence*, and *Relatedness*. The SDT elements of competence (which is the sense that one feels effective in one’s interactions with others and the social environment and experiences opportunities to exercise one’s capabilities) and relatedness (the sense of feeling connected to others, to caring for and being cared for by others, and being connected to the larger community) are most applicable to consider here (Baumeister & Leary, 1995; Deci, 1975; Harter, 1983; Ryan, 1995; Ryan & Deci, 2000; White, 1959). Six of the interviewees had consistently high scores in all three categories, while the two outliers had much lower scores, although Hank had a score in the *Relatedness* category that was at or near the scores of the six.

Six of the eight participants saw a connection between their PLC participation and content acquisition and knowledge, Interview Question 8. Isaiah and Ralph both emphasized how valuable the “give and take” of regular conversations was in terms of exposing them to new information concerning subject content and instructional practices. Louisa saw the primary benefit as being able to “Augment each other’s teaching. We kinda just fill in the holes of each other’s content knowledge and then we use that to challenge each other in teaching.” Claire and Phil emphasized the

collaborative nature of the process, as well as the “option to use new instructional materials or not.” Saul saw it happening mostly in an informal way, “The nuts and bolts when we get together it’s kind of informal. We talk about what our goals are, what has been approved, we collect data. Boom it’s done!” On the other hand, Will and Hank challenged the larger group’s understanding of the impact of the PLC on content acquisition and knowledge. Will, whose perceptions of PLCs was much more critical than other members of his department, reflected:

I will say it doesn’t hurt me. Not so much helps me. No, there’s no conversation around the content. I can ask questions. I could. But I don’t enjoy our PLC. I don’t have a good time in our PLC. I don’t feel like it really benefits me as much as the time I spend discussing what matters, in my opinion, with other teachers, how can I be a better teacher. As someone who’s new, I would love the PLC time to be, let me put you with a couple of good teachers that are wanting to help new teachers or a couple of experienced teachers and, you know, pick their brains, ask them for help, ask them for support. But no, we only talk about things that they feel like we are being forced to do, and I don’t think that anyone engages on a real deep level.

Hank noted that there is very little activity in the PLC around content acquisition and knowledge, but he did observe that, “Sometimes there might be someone who used a strategy, a re-teach strategy, you know, as they were getting the data, but otherwise no.”

Although there was no uniform agreement amongst the interviewees regarding the relationship between PLC participation and content knowledge and acquisition, there was virtual unanimity amongst the interviewees regarding the connection between PLC participation and collaboration with teacher-colleagues, Interview Question 10. In the on-line survey, the *Relatedness* score was high for all faculty who took part in the survey, particularly in regards to questions about trust and interaction outside of the PLC. The researcher's observations of the department or shared course PLC meetings noted the positive atmosphere, the active listening, and the shared and balanced levels of participation that took place. In response to Interview Question 10, all the interviewees acknowledged the positive connection between the PLC activity and collaboration, although with varying degrees of success. Isaiah noted that:

Yes, it is a really good place for us to get support and collaboration.

Everything is run through the PLCs. It puts that collaboration out there and lets us know what teachers are doing what. The idea of collaboration in a collegial environment works on all kinds of levels and is sought after by teachers. All of us are better together than as individuals and if we can work in a community where we can get what we need, I feel bad for those who do not have the ability to take part in a PLC.

Hank, who is usually on the opposite side of the question, observed that:

Yes, participation in the PLC does support collaboration. There is the whole group, we do our whole department, and then we get to focus on grade level.

That means my neighbor over here and I can do a little more of collaboration,



because we are teaching almost the same things, and we get to share some ideas within the context of the PLC. Also, sometimes I have lunch with people who are not in my PLC and things about work in PLCs come up.

Claire, the most veteran member of the faculty, stated a bit ruefully that, “Yes, we collaborate, but not as much as we did five or ten years ago. But hey, that’s still collaboration and that in itself is wonderful!” Will, with an ever critical gaze, observed that:

Yes, it gives us the space, the time, and the opportunity. But it’s also informal collaboration for the most part. It’s not directed collaboration. No one brings anything to support the goal we are supposed to be reaching. No direction from the chair or the administration. It’s unfortunate in my opinion.

Following the consideration of the connection between PLC engagement and collaboration with teacher-colleagues, the interviewees were asked to reflect upon two closely related but different questions involving how they perceived the changes that PLCs might have made to how teachers approach learning and professional development, and the impact that PLC might have had on personal learning and the learning of teacher-colleagues. In each interview, the researcher noted that responses to these questions necessitated the most time and reflection. Both questions called for the participant to consider responses in the context of all three elements of SDT and to be mindful of the importance of job-embedded learning as part of the usually student-centered and curriculum based focus of PLC work (DuFour & Fullan, 2013). During the 2012-13 school year, through the use of the “PLC Cycle and Data Share”

instrument, teachers were asked to reflect on what they had learned and would do differently in regards to establishing learning targets, pre and post assessments, and intervention and differentiation strategies. Although that instrument is no longer in use, and the current instrument, Plan on a Page, does not include a specific requirement for teachers to reflect on their learning, there was evidence to show that teachers did take time to reflect. As one SPED teacher noted, “Next year I plan to collaborate more effectively with Gen. Ed. teachers regarding student progress, missing assignments, attendance, and behavioral concerns in hopes of boosting Gen. Ed. participation, passing grade, and earned credits.”

Participant responses to Interview Question 13, “Has PLC participation changed the way you approach learning opportunities and professional development,” were quite mixed. Five of the eight participants either answered “Yes,” or saw the potential for this to happen through PLCs, and three answered “No.” Isaiah talked about how hearing about other people’s experiences encouraged him to look at his own learning and professional development in a broader way, with an emphasis on the greater good and the need for everyone to be life-long learners. Saul believed that he was already fully engaged in professional development, but he did acknowledge that, “If I weren’t already doing it, the PLC would definitely influence that.” Louisa looked at this question from the perspective of PLCs, particularly district-wide subject specific PLCs, providing information about professional development opportunities and financial resources that she might not be able to access otherwise:

The district doesn't have much content specific professional development [music] for what we teach, but there is money available, it's just a matter of tapping into it. We are both really interested in that and we've brought in guest artists and guest teachers to work with our students.

Ralph noticed that his PLC participation had definitely changed the way he looked at his own learning and professional development:

Yes, the PLC idea of reflection and inquiry is something that I am starting to notice is the next step of my teaching, the next step of my learning, and integrating it into my own learning process so I can move forward as an educator. And so, it's more the cycle of inquiry, and learning, and measuring that I see as integrating it into the process of how I learn.

Those who answered "No" came from a wide variety of perspectives. Phil answered in this manner because he was only a first year teacher and did not think he had the experience to even reflect upon the question. Will saw PLC participation as increasing his desire for professional development, but not as a change agent:

I don't think PLCs have changed the way I approach learning. In terms of professional development, if anything, I would say it has increased my need and/or desire because I want that, I already want that. I want to be a better teacher. I want to learn. For me it's a matter of getting advice, getting instruction, getting support, and I know that only good things come from that. And so, in essence, I am not getting that from my PLC. I will go to the district

to search out opportunities. Our PD is pretty extensive, we get paid to go to it.

There are opportunities all the time.

According to Hank, "If change has happened, I would not attribute it to my PLC."

After a couple of pauses he continued:

Mostly no, I would think, because, you know, we're not looking necessarily are what the learning opportunities are, I think, or how this is helping me in terms of professional development. I always look for tools and strategies, whatever I can find, anywhere I go, but you know, we're not, I think we have a slightly different focus. It is professional development because we work together, but I do not feel that we have any type of set goal for what that professional development is supposed to look like as a result of our meeting together in a PLC.

While the interviewees voiced disparate opinions about how PLC participation had or had not changed their approach to learning opportunities and professional development, seven of the eight reported that PLC participation had positively impacted their own learning and the learning of their colleagues, Interview Question 14. Louisa commented that:

I feel that you get out of PLCs what you put into them. So if you have a group that is willing to be productive and try to unite and problem solve, then you will make that happen. We've been provided with a lot of flexibility on what we work on, and I appreciate that because I feel that there are repeated opportunities to make the PLC work meaningful and to provide opportunities

for my own learning and the learning of my colleagues. It can be as productive as you want it to be.

Claire might have spoken for all those teachers who supported the PLC program and found value in it when she said:

I love my learning. Yes, I am still doing it. PLCs help all of us. I stayed after our meeting yesterday and chatted with another teacher, a young teacher. I need the feedback and I need to know if this is just in my mind or is this really very positive for the students, and what's the feedback from it. There's just not enough time in the day to poll the students all the time. You need the adult feedback. We're too autonomous. It's because we close the stinking door and no one thinks about the other because we are so overwhelmed. And so just getting everybody out the door and into a group just on its own has merit on top of just trying to help, learn, or share. I want to be an interesting, engaging teacher. I can't have everything I need myself, nobody can, and so I need to reach out and make collaboration with my peers and then synthesize it and make out of it what I can. PLCs can help!

The only participant who responded "No" to the question was Will. His response was very measured, and the researcher could sense that Will was struggling to frame a response. After a ten second pause he said:

I don't think that my PLC participation has positively impacted either my own learning or that of my colleagues. There's very little enthusiasm or engagement. I don't think it's because of any individual personalities. I think

it's more of a kind of...it'll be where I'm at coming in super engaged, wanting to learn and then after two or three years of doing the PLCs where we have this specific goal and it doesn't feel like it connects to what we're supposed to be learning or it doesn't help me or my teaching, we eventually become bogged down by it.

The data applicable to this research question indicated that of the three elements of self-motivation, relatedness was most meaningful to the teachers in terms of how they viewed their PLC participation affecting their own learning. Although mixed, the majority of the interview responses suggested that while the teachers did see opportunities for their own learning in their PLCs, they also saw it as a corollary to student learning and often noted that their learning took place in an informal or secondary manner.

### **Research Question 3**

The third question addressed in this study was, "Did the teachers perceive their participation in PLCs impacted instructional practices?" The data supported the general observation that the interviewees were almost evenly split on their perception as to whether their participation in PLCs actually impacted instructional practices in the areas of lesson planning and interaction with students. This split was not reflective of any consistent point of view, either positive or negative, toward PLCs, but was reflective of either each participant's experience of PLCs or how PLCs functioned within the specific academic department. But the data did show there was general

consensus that PLC participation positively impacted student learning. The interview questions that were most applicable to this research question were:

9. Does participation in your PLC assist you in lesson planning?
11. Has your PLC participation changed the way you teach and interact with your students?
12. Do you feel that your PLC participation positively impacts student learning?

All three elements conducive to the development of self-motivation (autonomy, competence, and relatedness); were evident in the data gathering process that addressed the question. As the evidence from the on-line survey suggested, the most applicable categories for analysis in this section were *Choice, Competence, Effort, and Relatedness*. Six of the participants have consistently high scores in these areas, and although the two outliers have lower scores than the other six, they are still high enough to indicate active engagement in terms of how they assess the work that they do in PLCs, how much effort they put into their participation, and how they regularly interact with peers. Although one of the interview questions asked about teacher interaction with students and not with teacher-colleagues, a number of participants responded to that question in a way that linked collaboration with teacher-colleagues to collaboration with students, and as such, the *Relatedness* category is applicable to this question.

The researcher noted through the review of the school artifacts and observations of PLC meetings that a primary focus of the academic department and

shared course PLCs was improved instructional practices. As evidenced by the “PLC Cycle and Data Share” documents and the Plan on a Page documents, teachers worked in the PLCs on learning targets, state standards, assessment tools, pre and post assessment data, and intervention and differentiation strategies. In each of the four academic department PLC meetings or shared course PLC meetings that the researcher observed, the primary discussion centered around improving instructional practice to facilitate educational practices such as claim, evidence, and synthesis development, meeting state standards, rubric development tied to the Common Core, student behavior modification needs and longitudinal data on student developmental goals.

Four of the eight interviewees believed that their participation in PLCs did assist in lesson planning, Interview Question 9. The lesson planning was not a structured activity during the PLC time, but was done on the teacher’s own time. Ralph acknowledged that he and the other members of his department did not plan the same lessons, but the PLC time did help when scope and sequence is important. “Our lessons don’t look exactly the same, but it helps us when we are kinda looking at the same goals, performances, and deadlines.” Phil emphasized that collaboration with colleagues helped him to learn more about the needs of the students and to prepare better lessons. Claire was adamant that effective lesson planning could not take place without input from the PLC:

I just don’t know how teachers, day after day, make their own lesson plans without input from anybody else. For me, it just seems like I’m not learning about what could go better. If you are in a PLC it really forces you to defend



what you are doing, or recognize that the lessons are not of the caliber you are looking for. Or they are not getting you to what you are supposed to have for a result.

Isaiah recalled that when he first started as a teacher that the lesson planning part of PLC work was “really super important for me.” He admitted that although some lesson planning still takes place, “it is in broad strokes; we don’t sit down and hash out every single lesson plan.” Still, the teachers in the department did have a good idea about what their peers were doing in their own classes and that contributed to positive lesson planning.

The responses of the four interviewees who do not see PLC participation assisting in lesson planning ranged from very matter-of-fact to very critical of the structure of the PLCs. Louisa simply stated that because she does not teach the same courses as her peers in the PLC, she does not think of the PLC time in this way. Saul acknowledged that in the SPED program he does not write lesson plans:

We develop IEPs and we drive our instruction and our programs on the goals.

Maybe I am speaking out of turn, maybe some of the others do, but I doubt that they have lessons, per se. It always make it tough for the administration to evaluate us. They want to come in and see us teach a lesson.

Both Hank and Will felt the structure of the PLCs prevented their use as an aid with lesson planning. Hank noted, “It’s really kind of incidental. It’s like there’s something in our discussion that I can actually use in lesson planning. But in most cases, we’re not supposed to do lesson planning in our PLCs.” Will stated:

Not really, no. What has helped me most in lesson planning is working with a veteran teacher one-on-one. The last few weeks we've taken time to work together and I've asked for advice. The teacher sat down with me and walked through steps that have worked for her, and I have been able to glean information from her and understanding. But no, the PLC is not a forum for newer teachers to ask questions. It happens, from time to time, but not a lot. It only happens if we are not going to be doing any other tasks during the meeting.

Although with some variance in respondents, the even split in opinion amongst the interviewees continued to manifest itself in response to Interview Question 11 – Has your PLC participation changed the way you teach and interact with students? Louisa and Ralph, who worked in the same academic department, both spoke about how peer collaboration in PLCs has affected their interaction with students. Louisa noted that:

Ralph and I get better as teachers the more we work together. It is a very productive partnership. We have similar priorities and we are constantly popping in and out of each other's rehearsals saying, "Ooh, I like what you are doing; I am going to use that there." Consequently, our students are collaborating.

Likewise, Ralph saw a change in his teaching and interaction with students:

It's more the idea of wanting to incorporate more data driven decisions in my process. It helped me frame my lesson and my learning targets to

know I need to start collecting this so I can be reflective upon what I teach. So, the PLC process has helped me with that, even though not specifically. Louisa and I sometimes will be talking and working on something in our PLC, and I realize like the lightbulb will go off in my head and I'll think, "You know, I really need to prove, like measure, so that I know exactly where the kids are on x and y, and not just use my gut to plan what's next."

Isaiah thought that his approach to teaching and interaction with students had changed, primarily because of curriculum changes at the district level:

Under the new superintendent, everything was measurable. Smart Goals measure everything we do. We get together and figure out how we are going to measure all aspects of student learning. Openness to how we are going to do all that has always been instructive in PLCs and is always good food for thought. So I think I have changed over the years. I have definitely become more focused on how students are getting their information and what information they are getting. PLCs help me in this process.

Saul, who did not see the value of PLC work for lesson planning, clearly articulated the impact of PLC work on how he worked with students:

I have been doing this a while, but I have gotten some new ideas since I have been here. It's good to have colleagues to talk with. Even though 17 years is a long time in Special Education, whenever you meet a new kid, every kid is different and you run into different behaviors and different ideas, and you're

pulling whatever hair you have left out and it's good to have someone to bounce things off, and they say, "Hey, we tried this," and you say, "Of course, I'll go try that." Even in the short time I have been here, I really appreciate what we have been doing in the PLC.

Phil, Claire, Will, and Hank acknowledged that the way they taught and interacted with students had changed over time, but not due to PLC participation. When asked this question, Claire paused for a few seconds and then responded:

I don't know. I think that my actions with students over 25 years have improved. I don't know if it is from the PLC or not. I think it's from me maturing and relaxing. I was raised in the military. I run a tight ship. The curriculum is important. And then I got a student teacher two years ago who was just wonderful. He was the most natural teacher I'd ever seen. And the student was important. And a little of that rubbed off on me.

Will responded quickly to the question with a definite, "No." When asked as to explain why, he stated:

I would say a lot of it is within myself. Just a desire to better work with kids, better impact the kids, help the kids. But on top of that a lot of that is seeing other teachers. When I see other teachers teach, whether it's on a YouTube video I am watching or when I get the chance to walk by a classroom with the door open, you know I see things I can tell are working, I could mimic or bring into my repertoire. That will have the biggest impact on my teaching and interaction with students.

When asked to consider whether PLC participation had positively impacted student learning, Interview Question 12, six of the eight interviewees acknowledged that it had, and two of the interviewees could not be sure. Five of the six interviewees who responded positively to this question cited “collaboration” as a key element of the PLC structure and process that positively impacted student learning. Ralph noted, “We collaborated on the same performance even though we are on different sides of the department and the kids had such an amazing experience with that.” Claire enthusiastically replied:

Oh yeah, oh yeah, oh yeah. One, they see us working together. We talk about that to the kids. Even our discussions around those things we are doing in our PLCs around the 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade helps us in talking about the students and the students who don’t get it. If you are going to open yourself up and talk to other people, you are going to improve yourself.

Isaiah made the connection between collaboration in the PLCs and student learning when he said:

I know that I am a better teacher because I am held accountable in my PLC, not only to myself, but to others who are teaching the same thing. We are not coming from a place of education that says, “Sit down, shut up, it’s time for me to teach you.” We are collaborative. We learn how to be collaborative in our PLCs. We learn how to be collaborative people and that helps our students because the focus is on collaboration, not conflict. If you are doing good practice and working in a collegial

environment with other teachers, you will approach students and student learning in the same way. This is an ideal environment in which students learn.

Even Hank, who was one of the two participants most critical of the PLC program at his school, saw that PLC participation positively impacted student learning:

Well, if we are all coming together and we're talking about the data that we've collected and we've agreed on the same goals together in our PLC, then, yeah, I think it helps clarify and helps give a clearer picture sometimes, because I see what another teacher colleague has done, and they may see what I've done and there are some things we can take back to the classroom. Plus, we are specifically talking about student learning in these PLCs as we are going over data.

Phil and Will both expressed uncertainty as to whether their PLC involvement had positively impacted student learning. Phil observed that as a first-year teacher he had not yet had time to "fail enough" and to go through a "full reflection cycle." Will acknowledged that the connection could be there, but he had not seen it.

The interview data and the survey data suggested that the majority of the teachers saw a connection between PLC participation and their ability to impact student learning in a positive way. Subject area and tenure at the school affected the teacher's responses to the research question. Teachers in core academic courses and teachers with more tenure were more likely to see the positive connection between PLC involvement and improved instructional practices. The interviewees'

understanding of their ability to choose how to create their own instructional practices (autonomy), as well as their ability to produce shared work opportunities with other teachers (relatedness), influenced their responses to this research question.

### **Summary**

The purpose of this qualitative study was to describe the motivation of secondary school teachers to engage in their professional learning through PLCs. The study also sought to explore whether this participation affected teacher learning and their instructional practices. The three research questions addressed in this study were:

1. What motivates teacher to get and remain involved in PLCs?
2. How did teachers believe their participation in PLCs affected teacher learning?
3. Did the teachers perceive their participation in PLCs impacted instructional practices?

In this chapter, the answers to the three questions were presented. Data collected and analyzed for this study and used to answer each of the research questions included survey results, observations of six school-site PLCs, school artifacts related to PLCs, and open-ended interviews with eight teachers.

In general, the survey results, researcher observations of PLC meetings, and researcher analysis of school artifacts complement data from the interviews. The survey results indicated that the responses of the interview group (n = 8) were consistent with the responses of the control group (n = 22). The survey results indicated that teachers were generally engaged in PLC work, found value in it, and

related well to peers when involved in their work. Teachers did not feel overly pressured when they participated in PLC work, but they did question how much autonomy they had in their PLC participation, due to the fact that PLC membership was mandated by the district and the school-site principal and was arranged through academic departments and same course grouping rather than through individual teacher choice, and the nature of the work while in the PLC. Survey results also indicated that two of the eight interviewees had demonstratively different responses from those of the other six interviewees. Data from the interview group survey results were shown to be consistent with data from the interviews and researcher observations of PLC meetings.

Interview data and survey data clearly showed that although teachers could not exercise autonomy in whether they could or could not choose to be in a PLC or attend or not attend meetings, there was evidence that demonstrated that teachers had varying degrees of autonomy and thus varying degrees of intrinsic motivation when it came to the work that would and could be done within the PLCs. Data indicated that teachers did have some autonomy in discussing educational topics of their own choosing and interest in PLC meetings, if and when scheduled work was completed.

Data indicated that even though the administration had provided information as to what a PLC was and was not, the teachers did not share a common definition or a common view of the mission and vision of the program. Some common themes were shared teaching practices and the sharing of data for analysis. There has been no school-wide PLC training, and teachers reported that they had either completed off-



site professional development training or learned about PLCs by doing the work within the structure and process.

The role of teacher collaboration was emphasized throughout the study results. Collaboration was viewed by the teachers as the primary influence for what motivated teachers to participate, how they went about their learning process, and how they used PLCs to improve instructional practices. The data suggested that teacher learning was a corollary of student learning.

The data indicated that teachers were not in accord regarding the relationship between PLC participation and content acquisition and knowledge, but there did exist a shared view that PLC participation, whether formal or informal, did support collaboration with teacher-colleagues. Responses were mixed as to whether PLC work changed how teachers approached their own learning, but there was virtual unanimity that PLC work had positively impacted teacher learning and professional development.

The interview data were mixed on how PLC participation impacted instructional practices. Responses differed regarding dealing with lesson planning and interaction with students, but were very consistent in their affirmation of PLC participation positively impacting student learning.

Chapter Five will highlight the key results from study, link those results and their implications to the literature, acknowledge limitations of the study, suggest implications for educational practice, and provide recommendations for further studies.

## **Chapter Five: Conclusions**

### **Summary of Purpose**

The purpose of the qualitative study was to describe the motivation of secondary school teachers to engage in their professional learning through Professional Learning Communities. The study also sought to explore whether this participation affected teacher learning and their instructional practices. The three research question questions addressed in this study were:

1. What motivates teachers to get and remain involved in PLCs?
2. How did teachers believe their participation in PLCs affected teacher learning?
3. Did the teachers perceive their participation in PLCs impacted instructional practices?

Individual interviews were conducted with eight teachers at the school site, along with observations, ranging from 15-45 minutes, of six school-site PLCs, a review of school artifacts related to PLCs, and survey results from 30 teachers.

### **Conclusions and Discussion**

The data gathered during teacher interviews, observations, artifacts and the surveys were in direct relation to the purpose of the study. The secondary data sources of observations, artifacts, and surveys supported the data from the primary teacher interviews.

The school-site in this study had a district mandated PLC process that had been in place since 2007. The structure included faculty-wide, academic department, and

shared course entities. This structure reflected the broadest application of PLC compositions as evidenced in the literature (Annenberg Institute for School Reform, 2016; Bryk et al., 1999; DuFour et al., 2010; Hord, 1997). Interviews revealed that the teachers did not share a common definition of a PLC, nor a common view of the mission and values of the PLC presence in their school. As noted by the principal, professional development around PLCs had been mandated by the district and guided by the theory of DuFour and his colleagues. None of the participants quoted DuFour or any other practitioner or researcher, such as Bryk or Hord, but they did use vocabulary like “practice,” “collaboration,” “small communities,” “sharing data,” “driving decisions through data analysis,” “shared decisions,” and “our own learning,” which seemed to suggest that there had been some discussion about the role of PLCs in the school faculty.

Still, the lack of consistent and formal attention to two key elements of PLCs, collective inquiry and action research, challenges the intent of the school to develop and sustain a true PLC process, especially in regards to its identity as a community and its ability to have a results-based orientation. Sergiovanni’s (1996) focus on the community aspect of PLCs argues that the “key to community in both classrooms and schools is a commitment to inquiry, and a commitment to learning as the basis for decisions” (p. 147). He also noted that, “If our aim is to help students become lifelong learners by cultivating a spirit of inquiry, then we must provide the same conditions for teachers” (p. 152). None of the data collected in the research study indicated an intentional consideration of how collective inquiry informed the operation of PLCs.

Calhoun (as cited by Hord, 1997), encouraged the use of action research to build and maintain PLCs:

Action research, in essence engages teachers in looking at what is happening in a school, determining if teachers can make it a better place by changing curriculum and instruction and the relationships of the staff with students, assessing the results and continuing the cycle. To do this requires rearranging the ways that people in the school relate to one another, by acquiring new skills in order to change and learning to be effective problem solvers for the school.

(p. 53)

The data, especially from the interviews and the artifacts, indicated that while there may have been some elements of action research present in the academic department and shared course PLCs, they were not consistent throughout the school nor the subject of formal planning.

The data did show that while teachers did not construct their PLCs nor have the option to participate in them, most did believe they had the ability to influence the functioning of their PLCs. The elements of intrinsic motivation that were most present here were autonomy and relatedness. This was also manifested in teacher responses, both in the interviews and the survey, in regards to the impact of teacher participation in PLCs in teacher learning as well as instructional practices.

**Research Question One:** What motivates teachers to get and remained involved in PLCs?

Most of the research on the impact of intrinsic motivation and SDT in education has been done with students (Beachboard et al., 2011; Deci & Ryan, 1985; Eison: 1981; Grolnick & Ryan, 1987; McGraw, 1978; Reeve, 2002). Although there was no clear evidence that intrinsic motivation influenced teachers to join their PLCs, especially when it is acknowledged that the school district mandated teacher involvement in PLCs, there were examples of how it kept them involved in PLCs. From the survey results, the category of *Perceived Choice* indicated clearly that teachers did not feel they had a choice to be part of a PLC, and it was clear that they felt strongly that they had to be part of a PLC. But survey results, in the areas of *Interest, Competence, Effort, Value, and Relatedness*, clearly showed that once teachers were engaged in their PLC work teacher activity was intrinsically motivated, as they acknowledged the autonomy they had in responding to assigned work as well as using extra time for shared work of their own choosing.

The data did suggest there was some flexibility in the work that teachers did once they were actively engaged in their PLCs. A higher degree of autonomy seemed to be present in the non-core academic departments, especially when it came to setting the agenda for their PLC meetings. For the most part, especially in the faculty-wide PLC and the academic department PLCs, agenda topics are set and materials are chosen for discussion, but there were not school-wide nor department mandates as to how teachers had to respond.

In the faculty-wide PLC, there was no evidence of autonomous behavior in regards to subject/materials, but teachers could chose to work independently or in department PLCs. In the first observed meeting, the principal asked teachers to sit by academic department. In the second meeting, teachers had their choice of seating.

**Research Question Two:** How did teachers believe their participation in PLCs affected teacher learning?

Data suggested that PLC participation affected teacher learning in a positive way. The teachers all referred to the embedded time that they had during the week to meet in PLCs and noted that this dedicated time provided opportunities for discussions about their own learning that they would not have if they had to rely upon creating their own time to meet outside of the school schedule. Collaboration with peers (relatedness) was the primary influence on the learning process for teachers, regardless of whether it was formally supported by PLC activities or informally supported in an environment that is influenced by the PLC structure. This finding is consistent with the limited literature available that notes that participation in PLCs does seem to support teacher learning and professional development that is primarily influenced by the needs of teachers as they work toward their individual, department and school-wide goals (Vescio et al., 2008). Stoll et al. (2006) argued that teacher learning in PLCs is more effective when “based on work-based learning” (p. 232). This is consistent with the research done that shows the importance of peer collaboration producing shared work and a results orientation that will improve practice and lead to continuous improvement in learning for both students and teachers (Bryk et al., 1999;

DuFour et al., 2010). One large research study (Jansen in de Wal, et al., 2014) did show that evidence of autonomy and relatedness in teacher participation in professional development activities would lead to the likelihood of teachers developing their professional learning.

Survey results are varied, but the high scores in the categories of *Interest, Competence, Effort, and Value* suggest that teachers recognized the impact that PLC time and activities have on their own learning. In terms of the interviews, there was a mixed response to how teachers saw the impact of PLCs on their self-learning. There was an even split on whether PLC participation affected a change in their approach to learning. Yet, seven of the eight participants saw a connection between the collaboration with teacher-colleagues in PLCs and the positive impact on their own learning.

Six of the eight participants saw a connection between their PLC participation and content acquisition and knowledge. Phrases such as “give and take” and “augment each other” supported the importance of collaboration in providing resources for teachers to enhance their own learning. Two teachers noted the informality and unintentionality of the teacher learning process through PLCs, but still acknowledged that learning was taking place.

**Research Question Three:** Did the teachers perceive their participation in PLCs impacted instructional practices?

The bulk of research and literature on the impact of PLCs has been on the predominate goal of PLC work: enhanced student learning. Data from previous studies strongly connected improved instructional practices on the part of most teachers with enhanced student learning (Goddard et al., 2007; Williams, 2013). Hord (1997) noted the positive outcomes for students in PLC based schools:

- Decreased drop-out rates and fewer classes cut.
- Lower rates of absenteeism
- Increased learning that is distributed more equitably in smaller high schools
- Larger academic gains in math, science, history, and reading than in traditional schools.
- Smaller achievement gaps between students from different backgrounds (p. 37)

Williams (2013) observed that teachers at all levels of schooling “believed that PLCs provided avenues for them to learn and positively impacted their classroom practices” (p. 35). Vescio et al. (2008) found that the teaching culture in schools implementing PLCs was improved because there was an impact on teacher collaboration, continuous learning, teacher empowerment, and an increase in collaboration. The results from this study support those findings.



The high survey scores in the categories of *Competence*, *Effort*, *Value*, and *Relatedness* can be viewed as indicating a clear connection for the teachers between their PLC work and improved instructional practices that come about through their PLC work. Although not as strong as the survey responses, in the interviews, four of the eight participants saw a clear connection between PLC work and improved instructional practices, while the other four either cited an indirect impact or did not mention it. With that said, six of the eight participants very clearly saw an improvement in student learning. They noted that teachers who modeled collaboration, promoted accountability through the consistent articulation of teaching and learning norms, and created mentoring opportunities for teachers and students were practicing more effective and supportive instructional practices. Once again collaboration (relatedness) was seen as the key to improved instructional practice which would lead to improved student learning. Their sense of deprivatized practice, either consciously or unconsciously, in which there is authentic joint work which is focused on explicit and common learning goals, produces high quality instruction, increased teacher confidence, and notable gains in achievement. This is in agreement with findings of Bryk et al. (1999). The other two participants felt they were either too inexperienced to assess whether PLC work had impacted their instructional practices or did not consider that the work they did in their PLC had any impact on their instructional practice.

**Limitations**

The researcher is a high school vice principal and had to be aware throughout the study of any bias resulting from his personal and professional feelings concerning the PLC process. The researcher's personal beliefs had to be set aside while engaged in the study on order to remain open to varied perceptions of motivations for involvement in PLCs as well as benefits for learning opportunities and professional development other than his own. The researcher accomplished this primarily through not reframing clarifying questions in the interviews as leading or representative of his own experiences.

The study is limited as a descriptive case study involving up to 30 teachers in one high school in a suburban city in the Portland metropolitan area. The study is also limited due to the limited amount of time that the researcher was able to spend at the school site, three months in the fall of 2015. Thus, the results of the study are directly applicable only in that context, and are not generalizable to the functioning of PLCs in all schools. The school in this study was influenced by district level policies and decision making as well as the role of the school administration. The results of the study were limited to the context and design of the study; therefore, generalizing to different context and other cases should be treated with caution. Longitudinal and further studies that would include a larger sample size, both in terms of interviews and survey responses, as well as multiple observations of every PLC in the school are recommended to see the wider effects of self-determined motivation on teacher engagement in PLCs.

## **Implications for Practice**

The implications for practice that emerged from the data findings suggest that while teachers are actively involved in regular PLC activities, the lack of a common school-wide definition of a PLC as well as clearly articulated mission (Why?) and vision (What?) statements for the role of PLCs at the school site may limit the effectiveness of this process “in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve better results for the students they serve” (DuFour et al., 2010, p. 11). Professional learning communities have the potential to enable a school to meet the demands of the future in education. Experts in the education field cite that schools functioning as PLCs elicit higher levels of student learning (Newman & Wehlage, 1995). Although teachers exhibited eagerness to engage in the work of PLCs, especially when it led to improved student learning and faculty learning, the lack of a more pronounced sense of autonomy on the part of the teachers to select their own PLCs and adjust learning opportunities within the PLCs, could have limited their sense of efficacy. However, the district and the school, primarily through the mandating of dedicated PLC time in the weekly school schedule, and as evidenced by the guaranteed PLC time and accountability instruments such as Plan on a Page, have shown a commitment to supporting a PLC process which seeks to build teacher capacity, collegial collaboration, and enhanced student learning opportunities.

The researcher was inspired to design and carry out this research study due to his belief in the potential for PLCs to build community among students and teachers

and to promote a collaborative environment for teachers in which they could develop opportunities for enhanced learning for students and enhanced learning and professional development for teachers. The implications of this study for the researcher are substantial. In the development of the PLC program at his own school, the researcher will need to be attentive to the establishment of clear statements of mission, vision, and academic norms to insure the acceptance and understanding by all faculty as to the purpose of a PLC process. The researcher will also need to establish dedicated and embedded time for PLC meetings and collaborative work to insure faculty buy-in and effective implementation of opportunities for student and teacher learning. The researcher will also need to work in collaboration with colleagues to build a PLC process that creates opportunities for teachers to exercise autonomy and competence, both in the creation of PLCs as well as their operation at various levels of academic focus and professional development. The researcher will begin this process at the beginning of the next school year. He will first, working in concert with his co-vice principal and using the questions from this study, interview all faculty and administrators regarding their experience with PLCs and what they see as the motivation for their continued involvement in the future. He will then work with a volunteer committee to develop and promulgate the mission, vision, values, and goals of the school as a PLC. This process will most likely take a year to complete and will set the stage for the actualization of the PLC cycle of collective inquiry and action research for the coming years.

## **Future Research**

This study suggests the need for additional research in a number of areas. The sample of this study was small. A longitudinal study is needed on how teacher motivation to engage in PLCs is sustained when entry into the PLC is mandated by the district and the school-site. One of the participants reflected at length on how a PLC structure created by teachers and representing not just academic departments or shared courses, but open to the creative inquiry and insights of teachers, might better serve the learning needs of the students and faculty. An example of this can be found at the researcher's own school. There, faculty came together at the inauguration of the PLC process and created their own PLCs based on what they saw as the learning needs of the entire school community, not just their own courses or the needs of their academic department. As this is only the second year of this process in my school, the data are not sufficient to yet provide a clear indication of the effectiveness and success of this model. Although this research study was limited in time and participants it did present evidence, primarily through the interviews and observations of PLCs, that supported the importance of creating a PLC process that provides opportunities for teachers to initiate enhanced learning opportunities for students and for themselves that are intrinsically motivated rather than strictly mandated by the district or the site-principal.

With that said, leadership does play a key role in the success of PLCs and can support enhanced teacher intrinsic motivation for building an effective PLC process (Eaker, DuFour, & DuFour, 2002). Considering that the research study did not include

input from the district superintendent or formal interviews with the school principal and the vice-principals, further research is necessary in regards to how school leadership might provide more opportunities for intrinsically motivated teachers to engage in the PLC process and take ownership for the learning that can take place. It would be beneficial to research what challenges that school leadership faces in creating more opportunities for teachers to function with autonomy and competence in a collaborative learning environment.

There is a need for additional longitudinal studies. The case study was limited in time and scope. There is also a need for studies on how intrinsically motivated teachers thrive and how teachers may benefit when colleagues support this autonomy. Finally, there is a need for more studies on how SDT can impact teacher learning as facilitated by involvement in PLCs.

To more fully explore the impact of PLCs on school improvement, teachers, principals, and superintendents must partner with students and parents to create a learning environment that will support the assertion that all students can learn, and that learning for students and teachers should be the essential focus of a successful and effective educational environment. The research is clear that intrinsic motivation, brought about through optimal challenges, rich sources of stimulation, and a context of autonomy, can energize the learning process for all (Deci & Ryan, 1985). Professional Learning Communities have the potential to create opportunities for teachers to act autonomously in both the selection of and actualization of PLC activities, to display competence in their role in the classroom and with colleagues as supported by

professional development opportunities, and to relate on a regular and positive basis with fellow teachers. Positive learning opportunities for teachers will definitely enhance learning opportunities for students, thus fulfilling the mission, values, and goals of PLCs.

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**Appendix A**

Consent Form for Interviewees

**APPENDIX A**  
**UNIVERSITY OF PORTLAND**

**Consent Form for Adults**

**Teacher Motivation and Learning: Reflective Participation in Professional Learning Communities.**

**Christopher Smart**

You are invited to participate in a research study conducted by Christopher Smart, from the UNIVERSITY OF PORTLAND, School of Education. I hope to learn what motivates teachers to engage in their professional learning through their participation in Professional Learning Communities (PLCs). I am also interested in how teachers perceive their participation affecting their own learning as well as instructional practices. You were selected as a possible participant in this study because your school has a well-established program of PLCs, and you regularly participate in PLC meetings.

If you decide to participate, you will be asked open-ended questions related to your experience in PLCs. The questions will be asked during an approximately 30 minute-long interview held either in your classroom, a department office, or a school conference room. All interviews will be audiotaped and transcribed in written form within 48 hours. You will be asked to take part in a brief written survey. Also, you will be observed as you participate in PLC meetings.

There are no physical risks associated with this study. The study will provide teachers and the professional education community with a better understanding of what motivates secondary school teachers to engage in their professional learning through their participation in PLCs. The study will also add to the research base on the subject of teacher motivation on PLC participation. However, I cannot guarantee that you personally will receive any benefits from this research.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Only the researcher involved and those responsible for research oversight, the Institutional Review Board (IRB)

of the University of Portland, will have access to any information that could identify you. Subject responses will be numbered and the code linking your number with your name will be stored in a separate and secure file cabinet. Please note, however, that unlike information you provide to your doctor or lawyer, the researcher can be compelled in court to disclose this information. When I publish any results from this study, such as in the form of the dissertation, I will do so in a way that does not identify you unless I get your specific permission to do so. I may also share the data with other researchers so that they can check the accuracy of my conclusions but will only do so if I am confident that your confidentiality is protected.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with your school. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions about the study, please feel free to contact the researcher, Christopher Smart (503) 519-9628; smart16@up.edu). If you have questions regarding your rights as a research subject, please contact the IRB (IRB@up.edu). You will be offered a copy of this form to keep.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims.

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix B**

Consent Form for PLC Participants

**APPENDIX B**  
**UNIVERSITY OF PORTLAND**

**Consent Form for Adults**

**Teacher Motivation and Learning: Reflective Participation in Professional Learning Communities.**

**Christopher Smart**

You are invited to participate in a research study conducted by Christopher Smart, from the UNIVERSITY OF PORTLAND, School of Education. I hope to learn what motivates teachers to engage in their professional learning through their participation in Professional Learning Communities (PLCs). I am also interested in how teachers perceive their participation affecting their own learning as well as instructional practices. You were selected as a possible participant in this study because your school has a well-established program of PLCs, and you regularly participate in PLC meetings.

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There are no physical risks associated with this study. The study will provide teachers and the professional education community with a better understanding of what motivates secondary school teachers to engage in their professional learning through their participation in PLCs. The study will also add to the research base on the subject of teacher motivation on PLC participation. However, I cannot guarantee that you personally will receive any benefits from this research.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Only the researcher involved and those responsible for research oversight, the Institutional Review Board (IRB) of the University of Portland, will have access to any information that could identify you. Subject responses will be numbered and the code linking your number with your name will be stored in a separate and secure file cabinet. Please note, however, that unlike information you provide to your doctor or lawyer, the researcher can be compelled in court to disclose this information. When I publish



any results from this study, such as in the form of the dissertation, I will do so in a way that does not identify you unless I get your specific permission to do so. I may also share the data with other researchers so that they can check the accuracy of my conclusions but will only do so if I am confident that your confidentiality is protected.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with your school. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions about the study, please feel free to contact the researcher, Christopher Smart (503) 519-9628; smart16@up.edu). If you have questions regarding your rights as a research subject, please contact the IRB (IRB@up.edu). You will be offered a copy of this form to keep.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you will receive a copy of this form, and that you are not waiving any legal claims.

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix C**

Teacher Interview Questions

## Appendix C

## Teacher Interview Questions

**Introduction:** The purpose of this study is to explore what motivates teachers to become involved in PLCs, what keeps them involved, and how this affects teacher learning and instructional practices. Because you are a member of a PLC within your school, I would like to learn about how your participation has enhanced your motivation for your own learning and how it has impacted instructional practices.

1. Please tell me a little about yourself. How long have you been teaching? In what academic department do you teach? How long have you been at this school?
2. What excites you about teaching? What do you find challenging about teaching?
3. How would you define a PLC within your school context?
4. How long have you been part of a PLC at this school?
5. Were you trained to implement/participate in a PLC? If so, how?
6. Why did you join your particular PLC?
7. What is the focus of your PLC work this year?
8. Does participation in your PLC assist you in content acquisition and knowledge? How/in what ways/can you provide specific examples?
9. Does participation in your PLC assist you in lesson planning? How/in what ways/can you provide specific examples?

10. Does participation in your PLC support collaboration with teacher-colleagues?  
How/in what ways/can you provide specific examples?
11. Has your PLC participation changed the way you teach and interact with your students? Explain.
12. Do you feel that your PLC participation positively impacts student learning?  
Explain.
13. Has your PLC participation changed the way you approach learning opportunities and professional development? Explain.
14. Do you feel that your PLC participation has positively impacted your own learning and/or the learning of your teaching colleagues?
15. Is there anything else you would like to add about your participation in your PLC?

**Appendix D**

IMI Written Questionnaire

## Appendix D

## Written Questionnaire

For each of the following statements, please indicate how true it is for you, using the following scale:

1 2 3 4 5 6 7

Not at all true

Somewhat true

Very true

## Interest/Enjoyment

I enjoyed my PLC work very much.

My PLC involvement is enjoyable.

I think my PLC work is boring.

My PLC does not hold my attention at all.

I would describe my PLC work as very interesting.

I think my PLC work is quite enjoyable.

While I am involved with my PLC, I think about how much I enjoy it.

## Perceived Competence

I think I do good work in my PLC.

After working in my PLC for a while, I feel pretty competent.

I am satisfied with my performance in my PLC.

I am pretty skilled in PLC activities.

My PLC involvement is an activity that I can't do very well.

## Effort/Importance

I put a lot of effort into my PLC.

I don't try very hard to do well in my PLC.

I try very hard to do well in my PLC.

It is important to me to do well in my PLC.

I don't put much energy into my PLC.

### Pressure/Tension

I do not feel nervous at all in my PLC.  
 I feel very tense in my PLC.  
 I am very relaxed in my PLC.  
 I am anxious while working in my PLC.  
 I feel pressured while working in my PLC.

### Perceived Choice

I believe I have some choice about what I do in my PLC.  
 I do not feel like it was my own choice to be in my PLC.  
 I do not really have a choice about being in a PLC.  
 I feel like I have to be part of a PLC.  
 I am involved in my PLC although I do not have a choice.  
 I am involved in my PLC because I want to be.  
 I am involved in my PLC because I have to be.

### Value/Usefulness

I believe my PLC can be of some value to me.  
 I am willing to be in a PLC because it has some value to me.  
 I believe my PLC work can be beneficial to me.  
 I believe my PLC work is an important activity.

### Relatedness

I feel really distant to my PLC colleagues.  
 I really doubt that my PLC colleagues and I can ever be friends.  
 I feel like I can really trust my PLC colleagues.  
 I'd like a chance to interact with my PLC colleagues more often.  
 I'd prefer not to interact with my PLC colleagues outside of the PLC.  
 I don't feel like I can really trust my PLC colleagues.  
 It is likely that my PLC colleagues and I could become friends if we interacted more often.  
 I feel close to my PLC colleagues.

**(Statements were randomized for the teachers who took part in the survey)**

