How do Teachers' Perceptions of their Agency and Engagement Change after Participating

in Self-directed Professional Development?

by

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SELF-DIRECTED TEACHER PD, AGENCY AND ENGAGEMENT

Abstract

One defining feature of a profession is control over decision-making with respect to professional development (PD). This study of three schools in an Alberta school district in Canada allowed teachers the option to opt out of centrally organized PD in order to pursue self-directed professional development (SDPD) for one school year (10 months). Activity Theory was used as a lens through which to visualize any changes in teachers' perception of their agency and engagement during this intervention. Agency and engagement were operationalized into components and criteria derived from the literature for recognition from the data. Naturalistic observation of the negotiation of the intervention process and of SDPD projects during the intervention period described how teachers were able to organize SDPD projects and that these projects had diverse memberships, goals and durations. Semi-structured interviews with 20 purposively selected teacher-participants including 3 principals, one assistant principal and one guidance counsellor asked similar questions about teachers' experiences with PD before and after the intervention. Inductive and deductive thematic analysis of these interviews revealed that, although teachers exhibited some of the components of agency and engagement in the pre-intervention phase of the study such as self-efficacy and self-reflection, especially with respect to the social environment surrounding PD and how power, identity and subjection were acting in this system, in the post-intervention phase results, teachers reported shifts in perceptions of agency and engagement, with more confidence in their self-efficacy, more reflexive work in their groups, and more intentional planning when undertaking SDPD. Teachers reported taking more control and responsibility for their learning and exhibited more consideration of how and what they learned. Most teachers reported that SDPD was satisfying and productive for them and described having more trust in and from administrators with regard to their PD experiences.

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Agency and engagement were used as indicators of PD quality in this study, as other evaluation measures of teacher PD have failed to capture a holistic view of what and how teachers learn, how this learning contributes to their ability to understand and to meet their learning needs, and how they consider themselves as professionals.

(348 words)

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Preface

This thesis is an original work by Kerry Rose. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "A CASE STUDY OF SELF-DIRECTED PROFESSIONAL DEVELOPMENT: DOES IT INCREASE TEACHER AGENCY AND ENGAGEMENT?", No. 0004563, JUNE 23, 2014.

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Chapter 1: Overview of the Study

Introduction

Teacher professional development (PD) or professional learning (PL) has been criticized due to a lack of evidence that it brings about changes in teacher attitudes, behaviors and/or practices (Borko, 2004; Wilson, 2013). Numerous models of teacher learning have been proposed and implemented with titles such as Communities of Practice (CoP), Professional Learning Communities (PLC), Action Research, Peer Coaching/Mentoring, among others (Villegas-Reimers, 2003). While implementation of such models has been found to be rewarding and productive for teachers in many cases (Borko, 2004), these models may also constrict teachers' professional development by homogenizing teachers' learning opportunities and processes (Philpott & Oates, 2017). These 'one-size-fits-all' models do not reflect what is known about teachers' work.

Teachers' work is complex (Avalos, 2011; Toom, Pyhältö & Rust, 2015) and their experience is context-dependent (Scribner, 1999) and value-laden (Avalos, 2011; Fullan, 1993). Teachers value their time to learn (Bayar, 2014), and their learning needs can vary considerably depending upon each teacher's day-to-day experiences (Toom et al., 2015). Because of the difficulty in meeting teachers' needs with any single model, even one with some internal flexibility (like PLC's), no consensus has arisen about which model would best meet teachers' ongoing and changing needs (Liljedahl, 2014). The position in this thesis is that, just as in teachers' classrooms, there is no one best practice in teacher PD. Imposing structure on teachers' PD may help administrators to manage it, but the needs of the teachers may be best met with less management and more teacher autonomy with respect to their own learning (Liljedahl, 2014).

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Autonomy is associated with professionalism in teachers' work (Hargreaves, 2000; Pearson & Moomaw, 2005) and teacher autonomy has been associated with greater job satisfaction, less teacher attrition, and higher motivation to learn (Pearson & Moomaw, 2005). Although teacher autonomy has been difficult to define, there is agreement that autonomy does not mean individualism or teacher isolation in learning contexts (Hargreaves, 2000; Pearson & Moomaw, 2005), but rather empowerment (Dikilitaş & Mumford, 2019) or authority (Pearson & Moomaw, 2005) to make decisions about learning, which often includes collaborative or collegial interactions. Although teacher autonomy in learning is seen as an important aspect of being a professional, it has often been denied to teachers in learning situations (Pearson & Moomaw, 2005), and recent studies have shown that in Canada, on average, teachers' perceptions of their autonomy in their professional learning contexts have been decreasing (Campbell, Osmond-Johnson, Faubert, Zeichner, & Hobbs-Johnson, 2017).

This study investigates an intervention that intended to increase teacher autonomy with respect to their learning experiences. Self-directed professional development, by definition, means that teachers have decision-making power in "initiating, sustaining, and providing stewardship of PD" (Slavit & McDuffie, 2013, p. 96). The intent of this study was to explore how providing teachers with the opportunity to self-direct their professional development activities might impact their sense of agency over and engagement in their professional development experiences.

Teacher agency is defined more fully in Chapter 2 of this thesis, but has been described as an indication of social power. Teachers who feel or act agentially feel that they have the ability, desire and motivation to drive their own learning agenda to make it fit their needs

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(Pyhältö, Pietarinen, & Soini, 2015; Riveros, Newton, & Burgess, 2012). Teacher engagement is a parameter that has been extensively studied in learning situations (Bakker, Albrecht, & Leiter, 2011; Hakanen, Bakker, & Schaufeli, 2006; Mills, Culbertson, & Fullagar, 2012; Nerstad, Richardsen, & Martinussen, 2010), and has been shown to be both measurable and important for learning situations, including teacher learning (Ning, Lee, & Lee, 2016). In this study, instead of using measures of PD effectiveness in delivering to teachers information or practices that are determined by others, as has been so frequently reported in the PD literature (for example: Bell, Wilson, Higgins, & McCoach, 2010; Foster, Toma, & Troske, 2013), this study's aim is to explore teachers' perceptions of how and if their learning is empowering (greater perceptions of agency) and/or engaging to them as professionals when they self-direct their own learning experiences.

In order to evaluate change in teachers' perceptions of their agency and engagement, each of these parameters is operationalized using the literature base. Agency components and the criteria used to recognize them are identified and explicated. Engagement components and criteria are adapted from the well-established UWES Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). By first categorizing the qualitative data obtained into Activity Theory constructs and then analysing the teachers' responses within these, changes in this activity system that resulted from this SDPD intervention and shifts in teachers' perceptions of their agency and engagement were analysed.

Underpinning this study was a stance that social systems like schools are organized based upon power relations between groups and individuals, and that these interactions can be understood by considering the moral/ethical dimensions that often remain unexamined in human

systems. This commitment to examining underlying bases for educational decision-making "requires critical understanding and engagement deeply rooted in concerns with ethics, moral commitments, awareness of relations with the self and others, and truth-telling as an activity" (Roof, Polush, & Boltz, 2017, p. 83).

Why I became interested in Self-Directed Professional Development

My Background

I come to this study having been a practicing teacher in the school district studied for over 30 years. I have learned, as Steffy, Wolfe, Pasch & Enz (2000) suggest, that it is not unusual for teachers later in their careers to gain insights into larger issues evident to them within their educational system and to question the *status quo.* In 2010 I completed a Master of Arts degree in Integrated Studies through Athabasca University in Alberta. This institution regards itself as Canada's 'open' university because it attempts to break down barriers for typically under-served communities (such as Indigenous or rural/remote communities) to obtaining a university degree. Although not myself a member of an under-served community, the coursework in that program often reflected goals concerning marginalized and under-served communities. Core courses emphasized social justice issues and used historical and cultural studies to inform research topics and interpretations. Courses that I took (e.g. 'Ethnobiology', 'Self-directed Behaviour', 'History of the Environment in North America' among others) were keys to my own development as a more reflective and more holistic observer of my own natural and institutional worlds. The type of reflection and observation I engaged in were important for me; I became more aware of the forces that were influencing my practice and my school system. I also became more interested in systemic barriers to my own learning and that of my colleagues,

and more interested in working toward institutional change. I envisaged the end product of this change would include creating a learning environment in which teachers were empowered through their professional development to attend to matters that they considered important.

Eventually, my Master's project involved developing a new science option course for high schools called 'Myth-busting Science'. In that course, students were asked to consider myth and science as ways of knowing about the world, where both could be respected and valued for their contributions and influence on society. Teaching students how to critique their world, its scientific and the spiritual aspects, to look deeply at societal structures that privilege one way of knowing over others, and learning with my students to look more carefully at the affordances and constraints of structures that operate in their (and my) environments was pivotal to me coming to realize that, although I was asking my students to be engaged and act critically in the world, I felt that my own profession was not typically doing the same.

My dissatisfaction with the lack of critical engagement in my school system became even more apparent to me during PD Days. Some of my professional development experiences are storied in Appendix 2. I considered that in my school system, the more I pushed at the boundaries of what was considered acceptable to occur on those days, asking those controlling teachers' activities to look more critically at the spaces where both students and staff were struggling, the more resistance I encountered from those in positions of authority. However, I learned that when I had the opportunity to work more closely with colleagues (and leaders), and there was time for deeper discussion of issues and problems, my colleagues (and supervisors) showed awareness of the same structural problems and barriers that I was noticing.

Myself as Change Agent?

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For me, the structural barriers and problems did not seem to be specific to one issue or to any school or grade level. I perceived a need for change across many areas of my professional context. Yet, change itself seemed difficult in my school system——regardless of the direction, subject, or people involved and their histories. Except for technological advancements, this same school system that I had grown up in was in every way that I could observe, identical to the one I now had spent the better part of my adult life working in. This situation was despite the myriad changes outside of the schoolhouse. Students and teachers were living in different times, although what happened in the school remained essentially the same as what I had remembered as a student. While PD days often advocated for changing the system for the better, I never saw any significant change in how classrooms operated for students after these days; even after years of PD programs and sessions.

When changes were advocated by the school system, there was often resistance, especially from veteran teachers. Younger teachers and administrators would sometimes disparage these teachers for not being willing to entertain new ideas. However, being a more experienced teacher myself, I could understand some of the reasons for the discontent. For example, new initiatives were often top-down, with little research or evidence justification, or even attempts to explain to practicing teachers why the new ideas were important. In some cases, because all possible implications of the new initiatives were not considered, problems in implementation arose that were consistent with the prior warnings form the veteran teachers. Still, these problems did not change how each new next new initiative was proposed or executed by administrators or PD consultants.

In response to these realizations, I began to organize my own PD sessions, taking care to create descriptions that conformed to school or district goals and policy. This experience was

liberating, as I was able to meet with my colleagues and contemplate and seek to improve

classroom practices that I was passionate about. Raised in the Western scientific tradition in my

first undergraduate degree, and as a science teacher, I also valued peer-reviewed research and I

began to reach out to the university community to help me move forward with PD sessions once

my own repertoire of materials and methods to share was exhausted. I invited educational

researchers to PD days and had them present and explain their research. I considered that my

colleagues were very receptive to this, and they even volunteered to participate when one of

these researchers asked them to be part of his research study.

Eventually I felt the need to expand my professional learning for myself, and to seek to

further expand opportunities for the learning of my colleagues. I enrolled in the Ph.D. program at

the University of Alberta while simultaneously finding a topic for my research that I felt would

continue this process of professional growth for me, and also for my community — my teacher

colleagues.

Self-direction in Professional Learning

It had been my personal experience that changes in my practice rarely occurred when

'experts' delivered material to me as a teacher. I would take copious notes and listen intently and

politely, but seldom made changes when I returned to my classroom. It was not until I took

control to self-direct my own learning situations that I began to change as a teacher and as a

person and as a result, identify and advocate for change in my environment. I learned that seeing

structures that act as barriers to learning and then acting to change and overcome these barriers is

called having agency, and I learned that when, as a consequence of such action, learners report

being more energetic and absorbed in their learning process that the learner is engaged. I came to

see this process as essential for responsive, responsible, and respectful systemic change in

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educational systems. Self-direction in professional development for teachers may be important for removing systemic barriers to learning as well as promoting ownership by the learners as they pursue their goals. Accordingly, this study was designed to seek to carve out places for teachers to engage in self-directed professional development, to observe the types of activities that occur, and to understand if and how such professional development changed systemic structures and the participants' perceptions of their agency and engagement.

The Research Question

My study was guided by the research question:

How do teachers' perceptions of their agency and engagement change after participating in self-directed professional development?

This thesis is divided into six chapters: 1. Overview of the Study; 2. Literature Review; 3. Theoretical Perspective; 4. Methodology; 5. Results; and 6. Discussion. Chapter 2 reviews literature regarding teachers' professional development, concentrating on autonomy and self-direction as an emerging consideration for PD, and the parameters of engagement and agency. Chapter 3 outlines the theoretical lens of Activity Theory and how this led to the choices in methodology that were considered appropriate for the aim of this study. In Chapter 4, I use the research question as a guide to elaborate my data collection and analysis methods and explain how these results are analysed and interpreted. I also speak to quality considerations made prior to and during the research process. In the results section (Chapter 5), I synthesize the data collected to elucidate how the intervention of more self-directed professional development may have altered the teachers' perceptions of their agency and engagement in the activity system being studied. Chapter 6 of this thesis summarizes the outcomes of this study and considers

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possible impacts of this research at the system level. I also outline how this study has contributed

to the field of research surrounding teacher PD and give suggestions for further research in this

area.

Chapter 2: Literature Review

This chapter begins with an exploration of what the term 'professional development' means in the education milieu and with an historical summary of selected research on this topic, concentrating on how the concept of autonomy arose as an important part of the teacher learning process. The constructs of agency and engagement are then defined and explored in terms of the teacher learning process.

Since the literature base is robust and diverse on the topic of teacher learning and professional development, the search process for appropriate, relevant literature required that the key terms involved be identified and the appropriate databases be used. For this literature review it was clear that many terms for teacher learning were used by researchers. As I outline below, even the term 'professional development' is under scrutiny. Google Scholar™ allowed me to first search terms like 'professional development' and 'professional learning' in virtually all appropriate databases for article titles and abstracts. Searches that began generally with 'professional development' for teachers, or 'professional learning' for teachers eventually led to some key scholars in the field (Borko, 2004; Campbell, 2017; Darling-Hammond, 2012; Desimone, 2009; Fullan, 1995; Guskey, 1986; Hargreaves, 1995, Joyce & Showers, 1980; Korthagen, 2017; Lieberman, 1995; Mockler, 2005; Postholm, 2012; Timperley, 2011; Villegas-Reimers, 2003). In my search I used key terms that these scholars used to describe more self-directed teacher learning topics: teacher 'autonomy', 'self-directed', 'self-selected', 'teacher leadership', 'self-study'. Once the key terms and/or key articles were identified, they were accessed (if not available from Google Scholar) through Ebscohost/ERIC, Proquest Education Journals, Springer, and Taylor & Francis databases. Literature pertaining to teacher learning guided by teachers themselves was included, regardless of the terminology used. General and

international reviews were included as well as smaller scale studies; all that were found made reference to teacher autonomy or self-direction in learning and professional development. Eventually, as the constructs of agency and engagement were identified by me as important parameters, these were also included as search terms. Articles were excluded if they were not peer reviewed and/or they did not speak to teacher autonomy, self-directed learning, agency, and/or engagement in teacher professional development and learning.

This review is organized chronologically, with the most recent literature cited last. As I conducted the searches, it became apparent that there were many different agencies, countries and approaches to PD research, but that the concept of teacher control over PD had become more evident and more strongly supported in the literature over time. This emergence of teacher autonomy as a recommendation for teacher PD is congruent with the Activity Theory approach in this study, that asserts that a system's "problems and potentials can only be understood against their own history" (Engestrom, 2001, p. 136). In the following sections, the progression of the literature base is important to elucidate in order to see how trends in teacher learning literature mirror changes in foundational ideas about what and how teachers can and should learn. Since teacher autonomy is closely tied to issues of power and the ethics that underlie the types of learning that are valued by both teachers and those whose decisions govern teachers' learning environments, these shifts in terminology used and trends in the research literature can reveal how and why teacher autonomy in PD is now an emerging focus of attention for teacher learning.

Professional Development

What is Professional Development?

This section includes an analysis of the term 'professional development' in the educational milieu and explains how this term has arisen to describe teachers' on-the-job learning. I then offer an historical review of the progression of research surrounding teacher professional development since the 1970s and the emergence of the concept of self-direction of PD activities over recent decades.

'Professional' 'Development' — What's in a Name? The word 'professional' comes from the Latin '*professio'*, which means a public declaration. Historical professions were those whose home was in the faculties of the medieval universities — medicine, law, and the clergy. These three professions all served the public with counsel; the declarations of experts that the public was asked to trust. In the 1950s, Ernest Greenwood, in an oft-cited paper (Greenwood, 1957), attempted to define the idea of a profession and noted that professions fall into a continuum with medicine, law and scientific researchers at the elite level, teachers, nurses and social workers in the middle, and scrubwomen (sic), watchmen (sic), and farm laborers at the lower ends of the continuum.

Greenwood (1957) judged professions as higher or lower on the continuum by whether or not they possessed the following attributes: systematic theory, authority, community sanction, ethical codes, and a culture. His definitions still ring true today: those careers most commonly considered to be 'true' professions (like doctors or lawyers, for example) are typically grounded in academic theory; moderated by research and support from the university; they grant and supervise accreditation of individuals in their ranks; they subscribe to codes of conduct and enforce them; and, they have both formal and informal values, norms and symbols. In fact, today's definitions are surprisingly similar to those of over 50 years ago. Brante (2010), for example, defines a profession as being a "scientifically based ontological model … [that is]

socially recognized … [and] linked to 'generalized cultural values'" (p. 875). These definitions are important to this research since it is just these social, cultural and value-laden aspects of the teacher's world today that leads to the interrogation of PD that this study attempts.

Whether or not teaching is a profession is still under dispute. In Canada, for example, provinces have teacher's associations, which are common in the professional world. Although these associations regulate the conduct of their members and control, at least partially, the entrance of new members in a similar way to other professional associations (i.e. the medical and legal professions), these associations (in Alberta, the Alberta Teachers' Association) also negotiate contracts of employment in their roles as labor unions, which would signify to some that the occupation is non-professional. The trades (e.g. carpenters, plumbers) negotiate contracts in this way, and they are less likely to be considered professions (Alberta Teachers' Association, 2012b).

This quasi-professional status might also be due to historical factors. The occupation has been and still is female-dominated, especially at the elementary school level. Teachers in the past received less post-secondary training than other professions in most countries, and teachers were seen as public servants, not autonomous actors (Ingersoll & Merrill, 2011). Sociological studies have also found that public school teachers typically rank in the middle of the occupations in professional prestige and also in terms of credentialing, authority over decision-making, and autonomy in professional development, which are all considered hallmarks of the professional status of an occupation (Ingersoll & Merrill, 2011). The teaching occupation still occupies a contested middle ground in the continuum of the professions today, as it did decades ago.

Thus, terming the space made for teacher learning 'professional' seems to be an attempt to legitimize the activity — to lend it an important and essential quality it might otherwise not have. After all, teachers are most often on the public payroll, and perhaps the education system feels the need to justify paying teachers to engage in activities that are not immediately productive in a capitalist state (Corcoran, 1995).

The term 'development' comes from the old French for 'unfold.' Development could be considered a process of directed growth. Jonathan Neufeld (2009) points to the term's deep roots and asserts that the term 'teacher development' arose at times when Darwinian concepts began to permeate the social sciences. The theories of Marx, Freud, Skinner, Dewey, and Piaget followed the Darwinian concepts of development. These theories all have, at their core, a belief in the idea of progress. Neufeld further traces the idea of human progress to St. Augustine's seminal text *The City of God*, (early 5th Century A.D.) wherein human development from the mundane to the ascendant spiritual era would eventually result in an age of "affluence, equity, freedom, tranquility and universal justice" (p. 67). Because these meta-narratives have become the foundation of not just educational theories, but worldviews of both humanity and nature for hundreds of years, it is not surprising that the term resonates in our lexicon today. The use of the term 'development' in educational learning may have come into being because the evolution of humanity and of nature have been shown in historical contexts to be powerful and pervasive ideas.

'Professional development' has more recently been defined as "teachers' learning, how they learn to learn (and how they apply their knowledge in practice to support pupil learning)" (Avalos, 2011, p. 10). But this definition does not consider questions of direction or

measurement, nor does it define what qualifies as PD and what does not. The definition also belies the potential power of the professional development process and its complexity. It may be wise, in this context, to err on the side of inclusiveness — for there is little agreement in the literature about these issues, and a more inclusive definition of what to include as legitimate professional development may be needed for educational systems to respond to new challenges from the ever-changing environments that they are located within.

Recently, there has been a move to replace the term 'development' and describe this process as teacher 'professional learning' or 'PL' (EdSource, 2013). This renaming and reconceptualization was the case as my own study took place and the professional development committee in the school district where this study occurred deemed 'PD' an outdated term with negative connotations. In Canada, 'PD Days' are sometimes seen as impinging on valuable instructional time for students: "Parents found the days a nuisance, teachers found them a waste of time — and they did not even work" (Hopper, 2012, para 1.). The name change is not problematic, except that, as with many educational constructs, the change in terminology may lead to some confusion as to whether or not PD and PL are the same thing, and possibly make it more difficult for literature or web searches to find important contributions to this field. A recent hybrid model to attempt to incorporate these terms has been proposed by Fullan and Hargreaves (2016) (See Figure 1). Here the fields overlap but the terms are not interchangeable.
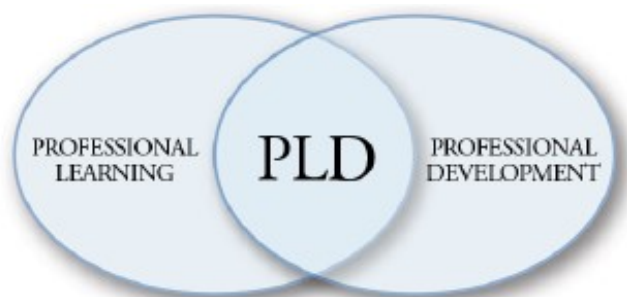
Figure 1: Professional Learning and Development Model (Fullan & Hargreaves, 2016, p.3)

Fullan and Hargreaves see professional learning as what and how teachers learn, whereas

professional development would include mindfulness and team building as more holistic aspects

of the teacher learning process. Professional Learning and Development (PLD) is a hybrid of

these two.

Changes in labels are often attempts to escape historical problems (Stewart, 2014); it is

important to understand and know the history and culture of this process and to use this

awareness in the process of change. Changing the language does not necessarily lead to change

in the activity. Also, much of the academic literature still uses the term 'professional

development' or 'PD'. Thus, although I have no objection to the term 'professional learning'

(PL) or 'professional development and learning' (PLD), for simplicity, I use the term 'PD' or

'professional development' throughout this thesis and consider all learning that teachers do that

concerns their work included in this term.

What do Other Professionals Do to Learn? Other professions all have avenues for

professional learning or development, and, in general, these avenues are typically self-directed

and evaluated on a more or less formalized basis. For example, physicians in Canada belong to

their professional association, the Royal College of Physicians and Surgeons of Canada, which

mandates a minimum number of course credits over a five-year period. These programs have "self-assessment and self-directed lifelong learning [as] the cornerstones of the current continuing professional development program" (Silver, Campbell, Marlow, & Sargeant, 2008, p. 25), and use self-assessment and audit tools that rely on Schön's Reflective Cycle (Schön,1991).

Lawyers also are required to make Professional Contribution Plans in Alberta, and nurses are expected to engage in a program of Continuous Professional Learning, but, as with teachers' PD offerings, there are many types and providers of these activities, with little coordination or evaluation (K. Duxbury (lawyer), personal communication, June 22, 2013; Jantzen, 2008). For both nurses and lawyers, professional development, though quite self-directed in nature, is expected to be done in addition to normal duties, and usually outside of billable hours. Thus, members often feel that, without dedicated time, their busy schedules prevent them from participating in these activities as much as they feel they should (K. Duxbury, personal communication, June 22, 2013; Jantzen, 2008).

Other professions, including legal, medical and financial professionals, are trusted and expected to schedule, choose, and participate in professional learning that they see as relevant and important (Daly & Cervero, 2016). The education profession, however, which has learning as its purpose, is somewhat unique in that it has an expectation of dedicated paid time for this activity.

Part of being a professional then, can be considered as taking responsibility for one's own continuous learning. For professions, trust is important. As with the medical, legal and financial professions, those using the services of professionals rely on the accreditation and educational structures in place to certify that those who practice can be trusted to perform their vocation.

Trusting professionals to meet their ongoing learning needs is an extension of this social

contract. Having autonomy over professional continuous improvement and learning then, is an

indicator of the status afforded to professions. The historical and institutional groundings of

teacher professional development are important to consider, as this study pushes at the

boundaries of what types of autonomous actions teachers can be trusted to take in their

educational systems.

Professional Development of Teachers — A Highly Contested and Divergent

Concept. Most educational researchers who study PD understand that education is a human

endeavour where those who teach must also learn, and that teacher learning can be a powerful

vehicle for reforming education (Borko, 2004; Garet, Porter, Desimone, Birman & Yoon, 2001;

Guskey, 1986; Lieberman, 1995; Randi & Zeichner, 2004; Villegas-Reimers, 2003; Wilson &

Berne, 1999). However, it is far from clear or agreed upon what education reform should entail

and what or how teachers should be learning. Consequently, teacher learning is considered and

studied by those within differing levels of institutions and organizations concerned with

education. Research universities (including both education faculties and subject-specific

faculties), political entities responsible for education (in Alberta, the provincial government

department — 'Alberta Education'), the school districts, the schools themselves (and groups

within these entities such as committees, departments and/or informal groups), and also

professional associations (in Alberta, the Alberta Teachers' Association) are all involved in

teacher professional development. Also, larger bodies, such as national governments, the UN

(United Nations) and others (CIDA — The Canadian International Development Agency, now

Global Affairs Canada, for example) also work to oversee and influence educational issues,

including teacher development. More recently, a plethora of private providers of materials and

resources have entered the space. Both not-for-profit (e.g. 'Learning Forward'[1]) and for-profit

(e.g. 'The Buck Institute for Education'[2]) agencies offer their services to teachers and

administrators. The services and research carried out by these bodies may or may not be

coordinated or communicated between these groups.

It is not surprising that the approaches, philosophies, research, and discourse about how,

why, when, and if teachers are learning vary in terms of approach, goals, and even language. For

example (as mentioned previously), 'teacher professional development' is the typical term used

to describe the types of learning experience that teachers experience once they complete their

initial teacher training at a university or college. But other terms have been used and may be

more or less applicable depending upon the context. Other terms include 'teacher professional

learning' (Lieberman, 1995), 'continuous professional learning' (Lessing & DeWitt, 2007),

'professional communities of learning' (Hord, 1997), communities of continuous inquiry and

improvement' (Hord, 1997), 'professional growth' (Beatty, 2006), 'self-study' (Loughran, 2007),

'teacher training' (Joyce & Showers, 1980), 'staff training,' (Brand, 1998) and 'staff

development' (Joyce & Showers, 1983).

What and *how* teachers learn during these experiences is also subject to much

terminology, which includes terms and methods such as 'pedagogical content knowledge'

(Lieberman, 1995; Silverman & Thompson, 2008) 'inquiry-based methods' (Luft, 2001),

'project-based learning' (Blumenfeld et al. , 1991), 'problem-based learning' (Gallagher, 1997),

'lesson study' (Fernandez & Yoshida, 2012), and 'action research' (Van Driel, Beijaard &

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[1] https://learningforward.org/

[2] http://www.bie.org/about

Verloop, 2001). These constructs may be useful, but they complicate the process of understanding the field and finding common ground. As if this plethora of terminology were not enough, the format that the learning takes is also subject to confusion. Terms like 'in-service,' 'institute,' 'convention,' 'conference,' 'seminar,' 'workshop,' 'session,' and 'course' are just some of the variations and the distinctions between these are often not explicitly clear or definitive.

Interestingly, in most literature, and (at least in Alberta) in school division policies, formal graduate coursework is seldom included in this discourse. Although teachers in Alberta do have some encouragement to engage in graduate programs offered by post-secondary institutions in the province, including via increases in salary typically up to 6 years of formal university training, and they may also have access to some bursaries and funding by some districts for educational leaves, written policies of school districts often refer only to shorter-term workshops, seminars or institutes as qualifying for funding via typical PD supports. For example, one school district lists acceptable PD activities, and omits any mention of post-secondary education: "It is the professional obligation of all staff members to continually upgrade their competencies through such activities as professional reading, membership in professional organizations, attendance at institutes, conferences, seminars, and participation in curriculum development activities." (Grande Prairie Public School District, 2019, para. 1.) It could be argued that supporting teachers' work toward advanced degrees might allow Alberta teachers to be considered as learners throughout their careers, supporting their professional status, but although funding for PD activities is typically available to teachers in Alberta, and although some districts do allow teachers to use their PD funds for coursework, this is not universally

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supported and often Alberta teachers pay their own tuition in order to engage in graduate

coursework.[3]

    In short, the discourse surrounding teacher professional learning has remained, as Gusky

and Huberman suggested in 1995, "protean and multi-vocal" (p. 272). Teacher learning

opportunities, and the research surrounding them, have been described by Wilson and Berne

(1999) as "scattered and serendipitous" (p. 173). Researchers have looked for ways to organize

and study PD by grouping studies with pedagogically similar approaches, with similar content or

duration, or similar goals or purposes (Kennedy, 2016), but no clear and consistent consensus

has emerged as to what features make PD more effective or even how to group these features

into study reviews (Kennedy, 2016). This lack of common ground for communication in both the

research community and in the implementation of PD continues to make it difficult to synthesize

what we know about teacher learning and professional development, even though several

decades and many billions of dollars have been spent on trying to improve PD for teachers

(Creemers, Kyriakides, & Antioniou, 2013).

    Although considerable diversity and disagreement about even what can and cannot be

known about this subject remains problematic, this body of research is broad and sometimes

deep, and has revealed some durable, basic ideas. What follows is a chronological survey of

literature that highlights aspects of PD that concern this study, namely the emergence of teacher

voice and autonomy as aspects of the process that should be considered.

An Historical Analysis of the Professional Development Literature

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[3] This information comes from personal experience, and my own experience as a graduate instructor and project manager in an educational research centre in Alberta. This is also storied in Appendix 2.

Regardless of the approach, underlying theory or perspective of the author(s), there is general agreement that many current professional development activities are not unlike opportunities made available to teachers at the turn of the last century and that, partially because the environment surrounding schools has changed so much since then, these opportunities are not serving the needs of most teachers. One summary, still relevant today, describes many of these criticisms:

> A good deal of what passes for "professional development" in schools is a joke — one that we'd laugh at if we weren't trying to keep from crying. It's everything that a learning environment shouldn't be: radically under-resourced, brief, not sustained, designed for "one size fits all," imposed rather than owned, lacking any intellectual coherence, treated as a special add-on event rather than as part of a natural process, and trapped in the constraints of the bureaucratic system we have come to call 'school.' In short, it's pedagogically naïve; a demeaning exercise that often leaves its participants more cynical and no more knowledgeable, skilled, or committed than before. And all this is accomplished by overblown rhetoric about the "challenge of change," "self-renewal," "professional growth," "expanding knowledge base," and "lifelong learning." (Miles, 1995, p. vii)

What might be most disturbing about Miles' (1995) statement is not his negativity, but that this statement was made 25 years ago. Even with this strong language and the advocacy for change by many in the field, these same problems are still evident in the literature. In a 2013 review of the teacher PD literature, for example, veteran PD researcher Suzanne Wilson stresses that problems with moving toward PD that consistently shows positive results for teachers still

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arise from a lack of consideration of the context of teacher professional development, and the lack of a "strong theoretical understanding of the mechanisms of teacher learning" (p. 311).

Some researchers blame a lack of common language for this inertia (Gabriel, 2011). Some point to increasing reliance on test scores for accountability (Hargreaves, 2009) and the underlying global market-driven reforms many countries have experienced (Doherty, 2011). Others point to a lack of willingness to reach a consensus approach for research directions (Desimone, 2009).

A 2011 review of the literature surrounding teacher PD confirmed that it is both the teacher experiences in PD and the research field surrounding PD that have stalled. In that review Manathunga (2011) asserts that the research community has remained "ignorant of its history and the genealogy of its literature [and thus] is in danger of fruitlessly traversing the same research ground, never moving on, becoming stuck with dated theoretical and methodological positionings" (p. 359). In the field of PD research and implementation, Manathunga argues convincingly that "histories matter … because they inform and remain embedded in the present or because they are forgotten and become themselves inaudible and invisible" (p. 359). Communication also matters. The literature seems to bear out Manathunga's further criticism that the field has "tribes and territories" (p. 356), which seldom converge and use different terminology and theoretical bases for analysis, making communication between them difficult. Not being aware of what has been done and what others are doing presently in the same field hinders our ability to move ahead coherently.

Notwithstanding powerful expressions of dissatisfaction at the state of its delivery and the research that surrounds it, what is usually called teacher professional development has had

difficulty with change — both in its implementation as a more meaningful experience for

teachers, and as a construct clearly informed by research. However, by surveying some of the

major research findings and recommendations, it is possible to see that there are some durable

ideas emerging and that these have gained legitimacy in the literature as research has progressed.

These become clear only as we, as Manathunga (2011) suggests, inquire into the historicity and

genealogy of the field. In order to understand how and why the concept of teacher autonomy has

arisen in terms of professional development over the past several years, in the next sections I

chronicle how self-directed PD as a vehicle for teacher learning has gradually gained acceptance

as a legitimate activity for teachers. I also describe how and why this acceptance is grounded in

the values that we hold with respect to teachers and their roles in educational systems.

Pre-2000 discourse - Some Visionaries

Despite some early claims that teacher PD caused little to no change in teachers' ideas

or practice (Guskey, 1986), some working in the field have shown strong advocacy for the

process of PD and have outlined clear directions for change in PD research and implementation

in their local environments and more globally. These pioneers set the stage for research that

followed in the next three decades.

Thomas Guskey has been working in the field of teacher professional development for four

decades in the United States. He was one of the first to decry the effectiveness of PD which had,

since its advent at the turn of the last century, been mired in "disorder, conflict and criticism"

(Guskey, 1986, p. 5). Guskey asserted that teachers want "specific, concrete and practical ideas

that directly relate to the day-to-day operation of their classrooms" (Guskey, 1986, p. 6), and his

conclusion that most PD activities do not supply such ideas or lead to changes in classroom

practice was seminal for the field. Much research to follow would attempt to take a more positive

approach, to try to determine what kind of PD *would* be effective, useful, and applied to

classrooms by teachers.

Michael Fullan, a Canadian, has been working with and for teacher learning and change

since the 1980s. He saw that "teaching and teacher development are fundamental to the future of

society" (Fullan, 1993, p. 17). But he was critical of the field; "teacher education — from initial

preparation throughout the career — is not geared toward continuous learning" (p. 14). He

suggested that teacher professional learning "has the honor of being the worst problem and the

best solution in education" (p. 14). However, he added that, "to have any chance of making

teaching a noble and effective profession … teachers must combine the mantle of moral purpose

with the skills of change agentry" (Fullan 1993, p. 12). His focus on teaching having a moral

purpose, i.e., the teacher as an agent for social change, and the increasing complexity of the

profession were both prescient to the directions research would take many years later. Fullan's

attention to the ability of teachers to be change agents, and his reference to teaching being guided

by a moral purpose were an indication that he was seeing that there were power structures at

work in educational systems that could prevent teachers from learning effectively and that

teaching was a vocation with an important moral/ethical dimension. The best solution he referred

to was simple — allow teachers control over their learning environments and encourage them to

change the system they inhabited from within (Fullan, 1993). We see here the emergence of the

concept of agency in the discourse surrounding PD (This concept is discussed further later in this

chapter).

Another Canadian researcher also brought insightful views to the emerging field of professional development research at about this time. Andy Hargreaves, in 1995, drew attention to "the importance of purpose, passion and desire" (Hargreaves, 1995, p. 9) in teacher professional development. After many years of working with teachers in the field, he began to realize they were "shaped and constrained as much by the structures and traditions of secondary schooling as were their students[,] …this institutional life of schooling makes the teacher as much as it makes the student" (Hargreaves, 1995, p. 10). This was also my experience as a teacher, my own lack of perspective becoming apparent to me only once I began to understand the institutional structures that were preventing me from controlling my own learning activities, as discussed in Chapter 1. In retrospect, Hargreaves was prophetic to note that "to understand teacher development at the turn of the millennium is to understand it in a peculiarly exhilarating and terrifying time of accelerating change, intense compression of time and space, cultural diversity, economic flexibility, technological complexity, organizational fluidity, moral and scientific uncertainty, and national insecurity" (Hargreaves, 1995, p.13). His language that included the affective life of the teacher and Fullan's consideration of the moral world of education were moves toward more holistic visions of the teacher's role and thus the learning that they may find meaningful.

Concurrently, Lieberman (1995) began to think broadly about how PD was delivered. She observed that learning opportunities that were typically considered valuable for students — including using experiences to create and solve problems, and working with others — were usually denied teachers (p. 67). She asked that researchers consider "deep-rooted philosophical notions about learning, competence, and trust that are at the heart of professional development in this era" (p. 67), and that they realize that teachers could, and should, develop stronger voices to

represent their perspectives (p. 73). This consideration of relationships, trust, and especially

teacher voice were themes that would resurface and resonate in research in future decades.

In Australia, in the mid-1990s, Loughran and Gunstone (1997) began to research PD

programs and found that, similar to North American observations, a typical PD program had

little long-term effect, lacked integrations into daily work, had unclear goals, little incentive for

good work and little control by the teachers themselves. They also stated that "professional

development is not something which can be delivered … educators are purposeful agents in

contexts that allow for human uniqueness, uncertainty of outcomes and opposing values"

(Loughran & Gunstone, 1997, p. 161). They paid attention to the value system underlying the

initiative and the importance of trust and the relationships developed within the PD program, and

asserted that such attention was an important part of a program's eventual possibility to be

meaningful for teachers. Thus, the concepts of teacher agency and values being important

components of PD were emerging components in the discourse at that time.

These leaders in the field in the 1980s and 1990s eloquently communicated the

deficiencies in much PD implementation and research, and were also cognizant of the forces that

constrain teachers and researchers in the field. However, there is little evidence in the literature

during the 1990s that this type of holistic change was being widely considered. Two notable

exceptions, the Project for Enhancing Effective Learning (PEEL) in Australia and the Canadian

Learning Strategies Group (which was an offshoot of PEEL), developed models that allowed the

teachers to have significant input as to the goals and topics for professional learning, and these

projects continued for many years and were seen as emerging models for school/university

partnerships (Erickson, Brandes, Mitchell, & Mitchell, 2005; Loughran, 1999). In the Canadian

model (LSG), leadership provided by Ian Mitchell, a teacher-researcher who was able to cross boundaries between practice-based learning and theory was credited as a key component to the success of this project, as the leadership for the learning activities gradually became more teacher-directed.

In general, however, at the turn of the century, although some promising projects and discourse surrounding teacher autonomy in PD were emerging, much research was concentrating on how to measure of evaluate the effectiveness of PD models designed and led by PD providers, not projects led by the teachers themselves.

The Millennial Turn — Finding the 'Magic Formula'?

By the turn of the millennium, educational researchers were increasingly using large-scale quantitative studies to measure and analyse PD programs provided to teachers, especially in the United States. This research coincided with U.S. reform efforts in schools attempting to improve American performance on international testing, especially in math and science. The large body of evidence compiled confirmed that PD organized by PD providers, whether these are school, district, government, for-profit, or non-profit providers, often does change some aspects of teacher attitudes and behaviours, and that some characteristics of PD usually helped them to be effective, as measured by teacher self reports, although the effect of the PD on student test scores or other measures of student learning was not well documented or even conclusively measured (e.g. Darling-Hammond, 2012).

Beginning in the 1980s in the social sciences, but, for PD research, becoming more prevalent at the turn of the millennium, was "an appreciation of the rich variety and strength of qualitative perspectives" (Seale, 1999, p. 111). As a result, parameters formerly thought to be

difficult to measure such as changes in attitudes, discourse, and eventual classroom teaching application became the subjects of intensive research.

Wilson and Berne (1999) conducted a large-scale literature review using discourse analysis and found at least some theoretical consensus as to what aspects of PD were considered valuable by teachers. Active learning (teachers being stimulated to deliberately construct their own understandings), ongoing involvement, including feedback, collaboration, embeddedness (PD operating in the everyday lives and work of teachers), and a content base (what subject and curriculum the teachers were teaching) were all factors deemed important. Wilson and Berne (1999) reported that teacher discourse did change after teachers experienced PD with these characteristics, but also found that "all many researchers can say is that the teachers learned to talk to one another, but little is reported about what they learned" (p. 200).

Almost as if in response, in the early 2000s, a flurry of quantitative studies began to investigate the aspects of PD that Wilson and Berne (1999) had identified — what came to be called consensus features of high-quality or 'reform' type PD programs. Content focus, active learning, coherence (defined in various ways, usually as congruence between district and teacher goals), collectivity, and longer duration were factors usually tested — this time in very large, usually American systems. The results were inconsistent. For example, a study done in 2001 with over 1000 math and science teachers found that traditional forms of PD (i.e. those lacking the consensus features listed above) and reform type PD initiatives both had similar effects on teachers' self-reports of increased knowledge and skills and change in teaching practice. Here, the duration of the activity had a greater effect than the other consensus factors (Garet et al. 2001). This finding that duration was important was confirmed by a large-scale study in the

United Kingdom in 2005 (Boyle, Lamprianou, & Boyle, 2005). However, the next year, the

same initial group of researchers performed another smaller quantitative study (n=207) which

found that active learning, coherence, and collectivity were all positively correlated with teachers

using new practices in their classrooms, but that duration of activity had no effect (Desimone et

al. , 2003). Such findings seem to suggest that although these factors may be important

components of teacher learning, reliance on these consensus factors to ensure PD effectiveness is

less than assured.

In 2003, a large-scale literature review done by UNESCO found that many types and

combinations of PD models were being used worldwide and most had positive effects on the

parameters they measured, the data coming mostly from teacher self-reports. The study

concluded that "there should be multiple strategic sites for professional development" (Villegas-

Reimers, 2003, p. 121). Again, the consensus factors, duration, active learning, collaboration,

and coherence, were recommended for shaping future programs. Notably for this article,

although the author reported that little or no research had been done to measure the effectiveness

of self-design in PD programs, final recommendations included allowing for more teacher

construction of the activities and recommending that teachers become designers of the PD

programs within which they participate (Villegas-Reimers, 2003).

Borko's (2004) review found that a content focus was important, but a more cognitive

approach — considering what students and teachers were thinking and believing when learning

— was appropriate and effective in promoting teacher meaningful learning. Borko advocated for

a multifocal lens perspective in PD research. She also advocated for "situating teachers' learning

in their own writing and classroom practices rather than developing extensive curricular

materials for either teachers or facilitators" (Borko, 2004, p. 10). These two extensive research reviews (Villegas-Reimers, 2003; Borko, 2004) suggested that teachers should self-design PD experiences that meet their perceived needs.

Adey (2004), in the United Kingdom, created and then evaluated a PD program that emphasized a cognitive approach for teachers (asking them to think more about their learning as they participated) and measured *students'* intellectual growth as a result. He reported that the combinations of cognitive conflict, social construction, and metacognition emphasized in PD programs for teachers had a positive effect in both quantitative (standardized test scores of students) and qualitative (e.g. school 'communication') indicators, and, although the sample here was small, the research study occurred over a span of 20 years.

Later in the first decade of this millennium, more studies were conducted to determine how the consensus factors proposed in the early 2000s influenced the effectiveness of PD (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009; Darling-Hammond, 2012; Penuel, Fishman, Yamaguchi & Gallagher, 2007; Randi & Zeichner, 2004) and these studies usually reported that these consensus factors — content focus, longer duration, active learning, collaboration and embeddedness — all correlated with positive teacher self-reports about their learning experiences. These studies had large sample sizes, employed quantitative methods, and involved statistical analyses.

At this time as well, several approaches to teacher PD that apparently satisfied the consensus factors noted above were developed and implemented asking teachers to consider their own contexts. Both action research and lesson study, although not identical, encouraged teachers to use a research cycle framework to (usually) collaboratively enquire into how their

classroom practices were affecting student learning. Lesson study includes teachers planning and evaluating a "live" lesson and should ideally include "implicit and organic noticing" (Murata, 2011, p.3). Lesson study has its origins in Japan, where it has been used as a standard practice (Watanabe, 2003). Action research is similar in that it usually includes a collaborative analysis of the classroom context by participants, leading to the formulation of a theory for change, followed by the action and the studying of the effects of that change, typically within a short time span (MacColl, Cooper, Rittenbruch, & Viller, 2005).

Research surrounding both action research and lesson study have shown similar results. Although teachers often report positively about both models, most studies have found little effect on student achievement as measured by test scores (Hargreaves et al, 2009; Dudley, Xu, Vermut & Lang, 2019). Perhaps more significantly, most lesson study groups outside of Japan dissipate or change focus without the continuous monitoring or support from the organizing entity. This loss of fidelity has even been described as "lethal adaptation", as teachers change the format of the lesson study process to one that they describe to be more "useful" (Wolthuis, van Veen, de Vries, & Hubers, 2020). In addition, "results show… teachers might have been especially challenged to continue with performing the research cycle at their own schools because colleagues had not been part of the [lesson study training process] and were not familiar with the practice" (p. 11). The authors note that their results apparently "show the difficulties of bottom-up implementation of PD. Many teachers struggled to spark interest among their colleagues in engaging in collaborative inquiry" (p. 11). Here, the term 'bottom-up' is used to describe a PD activity initiated, promoted and facilitated by outside 'experts', and any loss of 'fidelity' was seen as less than desirable. As has been outlined elsewhere in this thesis, this type of PD activity might not meet the definition being bottom-up, in other words, self-directed and promoting

teacher autonomy, and one possible reason for the problems of longevity with the lesson study projects might be the prescriptive nature of the format for PD, although this was not evaluated in these studies.

Congruently, for action research, the results from large-scale evaluations have been mixed. For example, from 2000 to 2013, the government-funded ($63 million per year) Alberta Initiative for School Improvement (AISI) program promoted action research as a preferred format for teacher professional development projects. School districts had freedom to administer the funds to support local initiatives, and "the collaborative and participatory processes … that guide action research seem[ed] to hold the promise of encouraging teachers' agency and autonomy at a time when it seem[ed] these very things [were being] gradually stripped away from the teaching profession" in Alberta. (Judah & Richardson, 2006, p. 67)

Action research had potential to be "viewed as a 'lived practice' by teachers where teachers might see themselves as part of complex, intersecting and entirely interdependent communities of practice" but "many teachers involved in state-mandated school-based projects found themselves caught between competing discourses of personal empowerment and individual autonomy on the one hand and externally driven measures of accountability and excellence on the other" (Judah & Richardson, 2006, p. 65). Since action research was promoted as desirable and sometimes even mandatory under the AISI project, these researchers cautioned that "imposed participation in professional development activities calls into question the intended results of action research itself" (Judah & Richardson, 2006, p. 66).

The AISI project lost funding in 2013, and, although many articles evaluating the effects of AISI on systemic school cultures and teacher responses to the program reported positive results, some were more critical:

It was evident that [school district AISI] thrusts and priorities typically have packaged programs of external trainers and training attached that can be high in consultant costs, ephemeral in influence and evanescent in impact, once the trainers and their albeit engaging and entertaining workshops have passed by. There is a concomitant risk that training and trainer-dependent packaging on a large scale can actually create the kinds of professional dependency on outside expertise that AISI in many ways is designed to counteract with its emphasis on school-initiated innovation" (Hargreaves et al, 2009, p. 110).

As a classroom teacher during these AISI years, which were immediately prior to the study described in this thesis, this was my experience. Although some of my teacher colleagues in other school districts in Alberta described to me of being supported for engaging in PD that they initiated and developed, my own professional experience is in alignment with the research findings noted above. Both lesson study and action research can be seen then as useful and rewarding PD practices for teachers under some circumstances, but when teachers are coerced into using them, autonomy and agency may be lost, and so may be some of the benefits of these models.

The consensus factors for quality teacher PD are still used today to describe effective teacher professional development, though, as noted with lesson study and action research initiatives, "disappointing results from recent studies of programs containing some or all of these features have turned this consensus on its head" (Hill, Beisiegel, & Jacob, 2013, p. 476). Since, it

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has been noted in American models that PD is often used as a vehicle for implementing new policy initiatives, it may not be surprising that the results of most large-scale studies have not yielded the expected results (Elmore, 2004; Little, 1993). Some researchers, seeing that evaluating these consensus factors did not result in consistent improvements in outcomes or design. began to suggest methods that look not at what the teachers say they are learning (self-reports and surveys), but how the teachers change their attitudes and discourse, and what the teachers say they want to learn (Hill et al., 2013; Kennedy, 2016) as indicators of quality in a PD program or experience.

Reaction to Objectivist Approaches

Several researchers reacted to the measurement 'epidemic' that arose in the late 1990s and early 2000s, accusing this approach to PD evaluation as being overly objectivist in its orientation, and thus not able to consider underlying motivations, values and affective factors affecting teacher learning. Mockler (2005) described how the discourse of 'what works' was being criticized by some scholars at this time because it "close[d] the door that leads to new possibilities, new strategies, new ways of reframing and reconceiving the educational enterprise" (Atkinson, 2000, p. 328). Randi and Zeichner (2004) acknowledged that the consensus factors found in the 1990s had some validity, but pointed to the "emphasis on accountability for student performance on national and state tests [being] one example in a long history [in the United States] of externally driven staff development agendas" (p. 220). They concluded, "professional development is not about learning to work more efficiently. … [PD should be] widening teachers' access to the professional knowledge base and [be] providing learning opportunities

that prepare teachers for contributing to it themselves. … to take charge of their own learning"

(Randi & Zeichner, 2004, p. 220).

The evolution of the literature surrounding the learning that teachers undertake has

relevance for this study; the researchers begin to call for teacher autonomy and teacher control of

the process of professional development. Although little reference was made to the moral or

ethical perspectives of the teachers in these studies, or the issues of power that were being

discussed as these suggestions for more teacher control were being made, the realization that

teacher professional development decisions were often made for reasons that were not congruent

with teachers' motivations or aspirations was an important step in this direction.

Teacher Professional Development and Student Learning

Although Guskey (1986) was one of the first to criticize the lack of research surrounding

teacher PD and its effect on student learning, others have also criticized studies of PD as lacking

in this crucial link between the teacher's learning and that of the students (Loucks-Horsley &

Matsumoto, 1999). One study (Louis & Marks, 1998) stands out as an attempt to do this. In their

study, 'authentic assessment' was used as an indicator of student learning. This type of

assessment was unlike typical standardized testing in that it asked students to "produce work

reflecting higher order thinking, conceptual understanding, and elaborated communication"

(Louis & Marks, 1998, p. 534). Their study found that the more teachers engaged in professional

communities (i.e. a group of teachers that had "shared values, focus on student learning,

collaboration, de-privatized practice, and reflective dialogue" (p. 539)), the more student

performance increased in all subjects tested (reading, mathematics and science) in the three

evaluated measures: "analysis, disciplinary concepts, and elaborated written communication" (p.

542). The study had a small sample size (24 schools), but they encompassed all three levels (elementary, junior and senior high), and all schools saw increased student success with these indicators, as measured by surveys of teachers and students, interviews, classroom observations, and teacher assessment activities. This study reported that "social support for achievement" (p. 538) was found to be instrumental in the way that teachers were able to better help their students when they felt supported by their school community. This study, with its focus on a broad definition for 'teacher community' and how this translates into both social and achievement support for students is a rare but important example of literature that examines this relationship.

Control and Accountability Concerns with Teacher PD

By 2005, studies of teacher PD often included comments about how control and accountability concerns can confine what PD supports are allowed for teachers, and how teacher beliefs and investment in the process were crucial. A large (n = 39 000) American study that measured the correlation between teacher control and amount of PD taken by teachers showed that "a one standard-deviation increase in individual teacher influence over school policy is associated with a 2.9 hour increase in PD taken" (Smith & Rowley, 2005, p. 145). In a research review of teacher PD in Hong Kong, the authors described how accountability measures and productivity goals were overloading teachers to the point where they were quitting the profession, and found that "quasi-market strategies often strengthen control over human autonomy and result in de-humanization and alienation on the part of educational practitioners" (Tang & Choi, 2009, p.16). Tang and Choi characterized teachers as: "driven by a commitment to the moral purposes of teaching … [which includes] teachers' active agency in professional knowledge construction" (2009, p. 15), and found that PD activities which took this into account

were considered meaningful for teachers, similar to the findings that Louis and Marks (1998) had reported over a decade earlier. What had changed though was the explicit reference to teacher control of PD. More than just allowing for community or collaboration, the studies now were investigating teacher autonomy and active agency in determining what teachers learned.

The voices of research veterans began to resonate in the literature again at this time. Fullan declared that "the most powerful incentives reside in the face-to-face relationships among people in the organization, not the external systems" (Fullan, 2006, p. 4), that "success is a mission driven at its core by a moral purpose", and that professional learning involves "learning to do the right things in the setting where you work" (Fullan, 2007, para. 1), not what you know when you come out of a workshop. Teacher values begin to emerge as important considerations, including moral and ethical decision-making. This forms a basis for the premise that teachers need control over their professional lives, but as this discourse began to be heard, there were new barriers becoming evident.

Hargreaves (2007) bemoaned that new threats to meaningful PD were becoming more prominent than in the 1980s — these include presentism (concentrating on exam scores and not long-term goals), authoritarianism (delivery of training, not construction of knowledge), commercialism (advent of private PD providers), evangelism (rise of the educational guru who encourages a cult-like dependency from teachers), and narcissism (staff developers who 'love themselves' and are focused on their style at the expense of substance). Hargreaves (2009) saw these forces at work in Canada and elsewhere. In Ontario, "continuing commitment to test-based educational accountability was supplemented by a range of system-wide initiatives [which] … alongside the idea borrowed from England of making tested literacy and numeracy linked to

political targets for improved performance the centerpiece of this reform strategy" (Hargreaves, 2009, p. 92). He pointed out that, during these reforms, "the more that control and intervention are orchestrated from the top, the tighter the focus must become in terms of what has to be controlled" (Hargreaves, 2009, p. 92). Thus, the growing emphasis in PD design had been to concentrate on raising test scores, but this neglected the real work of preparing students for life outside of school. Hargreaves pointed out that "the ironic effect of international interest in large-scale reform is that it has exposed how the countries and systems that have actually been most successful educationally and economically are ones that provide greater flexibility and innovation in teaching and learning, that invest greater trust in their highly qualified teachers, [and] that … do not try to orchestrate everything from the top" (Hargreaves, 2009, p. 92).

The work of teachers begins to emerge as complex, affective, and not aided by measures that simplistically attempt to define targets based on test scores or other measures of accountability. Teacher reflection and control become important goals in themselves for PD. The literature reflects a gradual movement away from promoting objectivist, transmissive styles of PD and that tries to test and measure simplistic constructs of teacher learning. Hargreaves' (2009) simple statement that "data do not always give us the answer" (p. 95) presaged the most recent phase in PD consideration: the age of uncertainty.

Complexity Emerges: New Paradigms and Approaches

Although some researchers are still operating within a paradigm that sees measurement of objective parameters of learning (e.g. standardized test scores) as the key indicator of improvement (Desimone, 2009 [U.S.]; Doherty, 2011 [New Zealand]; Gabriel, 2011 [U.S.], Jaquith, Mindich, Wei, & Darling-Hammond, 2010 [U.S.]; Steyn, 2012 [S. Africa]), recent

approaches show promise in attending differently to the entire philosophy behind professional development of teachers, in a field that is complex and difficult to study.

Nicole Mockler (2005) has been highly critical of what she calls the "discourse of instrumentalism" in teacher professionalism and learning and posits that the "development of such a scientific knowledge base for teaching denies the contextual, emotional, reflexive and iterative elements, which are so integral to teaching done well — in short, [it serves to] deny the craft and artistry of the profession" (p. 736). Mockler asserts that a narrow focus on "what works … fails to capture the complexity of the education context" and that this narrowness may result in "death by best practice" (p. 737). She calls for attention to our overarching goals of education and for a "transformatory" approach where the teaching profession "sees its primary responsibility in terms of the development of critical, literate, socially aware citizens with a strong sense of their own civic responsibility, and through them the generation of social capital and the propagation of civil society" (p. 738). Such an approach would also entail a willingness to "nurture talent without feeling threatened [by the state], to work collaboratively for improvement without judging harshly, and to foster real autonomy through holding appropriate expectations and exercising trust in the capacity of others" (Mockler, 2005, p. 743). She calls this stance one of activism and, although admittedly optimistic in some aspects, she asserts that this approach is better than what she calls the "spray-on [and] drive-by" (Mockler, 2005, p. 743) approaches that dominate PD opportunities for teachers.

Opfer and Pedder (2011) in the U.K. published a review of PD literature taking a complexity theory approach. They assert that much of the research done in the early 2000s committed an epistemological fallacy by "taking empirical relationships between forms of

activity or task (e.g. eing activity based), structures for learning (e.g. collaboration between

teachers), location (e.g. situated practice), and so on, and some measure of teacher change to *be*

teacher learning" (Opfer & Pedder, 2011, p. 377). They saw the apparent difficulty with the

ability of empirical study results to agree as a problem with not asking the underlying causal

question — why*?* The advantage of complexity theory approaches is that they assume that "there

are various dynamics at work in social behaviour and these interact and combine in different

ways such that even the simplest decisions can have multiple causal pathways" (Opfer & Pedder,

2011, p. 378).

The Emergence of Autonomy Considerations with Respect to Teacher PD

While acknowledging that the consensus factors so carefully tested in the early 2000s do

indeed affect PD outcomes, Opfer and Pedder (2011) argued that these factors are neither causal

nor predictable in their effects. They point to the 'Goldilocks Principle' often at work, where too

much collaboration or duration of PD activities can be as ineffective as too little, and the

recursive nature of learning and change in teachers' lives. They also look at the more intrinsic

factors such as teacher prior experience, beliefs, and values as important initial conditions that

are often ignored in large empirical studies. In the end, they call for a balance between autonomy

and administrative direction, shared assumptions and diversity of opinion, internal and external

sources of learning and point to the difficulty in achieving this balance. They also call for

developing "systems-informed research into teacher learning, [with] emphasis of investigation

placed on the exploration of the patterned behaviour arising from agents interacting locally

according to their own principles, beliefs, and interests, in the absence of an overall blueprint or

organizational master plan" (Opfer & Pedder, 2011, p. 396). Autonomy in PD planning, in other

words, should not be unlimited, but teachers should be allowed some freedom to guide their own learning directions.

Recent reviews on PD literature seem to confirm that more inclusive, less restrictive, more social, less passive considerations are emerging after the last four decades of research. Postholm (2012), working from Norway but looking at global literature from post-2009, found that the social surroundings are decisive for how teachers learn; local authorities and teachers should be allowed to take part in the PD decision-making; learning occurs well when in cooperation with other teachers; practice as a point of departure for reflection is important; and learning goals being considered should consider teacher autonomy as important ('metacognition' is important in this type of reflective analysis). Postholm concluded that cognitive, actional, emotional, motivational aspects of PD and good relationships are all key factors to consider in PD development.

Supporting these findings, Kennedy (2016), in a large-scale review of the U.S. research on PD found substantive evidence for:

> the importance of intellectually engaging teachers with PD content, rather than simply presenting prescriptions or presenting bodies of knowledge. Furthermore, the differences in program effectiveness when studies compared groups of volunteers as opposed to groups of non-volunteers remind us of the role of teachers' own volition in improving their practices. Future research should attend more to how PD programs motivate teachers, how they intellectually engage teachers, and to whether programs are meaningful to teachers themselves. (p. 974)

In Kennedy's (2016) review, some of the strongest findings were that programs that were voluntary, in terms of effect size, led to more than five times more improvements in student learning than non-voluntary programs and that programs that were non-voluntary often evoked teacher resistance or resentment and had *negative* effects on student learning. Kennedy's (2016) review is important and rare as the findings of effectiveness are based upon measures of student achievement, including scores on standardized tests, but also other student assessments that were designed to measure parameters that individual PD programs were targeting (e.g. student reading scores, etc.). These findings indicate that duration and intensity, defined as time spent with teachers, were not as important as the consideration of teachers' needs, and facilitators of PD working with teachers as peers, not as more knowledgeable experts. In fact, PD programmes that used 'coaches' in this review were amongst the least effective types of PD, even if they were of longer duration, possibly due to teachers' perception of the directed nature of the learning.

Extending these ideas, Pyhältö et al. (2015) call for more studies that "capture the complexity and reciprocal nature of the preconditions for learning and well being in the process of school development" (p. 824). While this may be difficult, my study may help to answer this call by using Activity Theory to visualize the interactions that occur as teachers experience PD, and how these factors are affected as teachers are given some autonomy over decisions concerning how and what they learn (See Chapter 3, Activity Theory).

The previous discussion of the evolution of research involving teacher PD has been important because it allows for the establishment of a base upon which future research might proceed and it also elucidates how self-direction in the professional development of teachers is not a new concept or one that is proposed off-hand (without consideration). Giving teachers

autonomy acknowledges that teachers can be trusted to act ethically to improve their practice and their system. Making values-based decisions lies at the core of what it means to become a self-directed professional learner. The concept of teachers' control over their professional lives is one that the research community has gradually come to accept, as research studies concerning this concept began to accumulate.

Like other areas of teacher PD research, autonomy in teacher learning is surrounded by a glut of terminology. PD can be 'self-directed,' 'self-studied,' or 'self-evaluated.' It can be 'autonomous,' or advocate for an 'internal locus of control.' Although each term has its specific content and use, the idea that teachers should have control or voice in their PD experience has been emerging since at least the late 1990s (Wilson & Berne, 1999). In 2003, Smith, in the U.K., began to notice the increasing emphasis of teacher autonomy as a discussion point in teacher education research circles. He pointed out that teacher autonomy sounds like a noble and just concept, but that just what this phrase means needs to be carefully defined. He points out that school systems are notorious for their structural constraints on autonomy, but that a truly autonomous teacher action may, in some cases actually "accommodate transmissive, authoritarian, or oppressive purposes" (Smith, 2003, p. 7). He asks that the language be clarified to include the notion that one that is autonomous should act "independently and in cooperation with others as a socially responsible person" (Dam, 1995, cited in Smith, 2003, p. 7). However, he argues that the concept of teacher autonomy "lies at the heart of what it means to teach 'appropriately,' in any context" and that without this autonomy, "teachers will be "the 'victims' of received ideas" (Smith, 2003, p. 8).

Beatty's (2006) case study of Ontario teachers explored what she called a 'grass-roots' entry point for individual professional growth - the collaborative self-study group. This research reported that teachers who participated in this self-directed PD model acquired an increased sense of control, of self-efficacy, and general satisfaction with the congruency that they felt between their professional, personal, and organizational selves.

Logan's (2006) Australian study revealed that when presented with the opportunity to self-direct their learning teachers had to be convinced of their authentic control; however, once they took control, there was an increase in the teachers' commitment to the process (Logan, 2006). Dass and Yager (2009) initiated a PD program for science teachers designed to be self-directed, long-term, embedded in the immediate context of the teachers, and inquiry-based. They reported that teachers exhibited more positive attitudes, increased confidence, increased collaboration and increased use of technology in their classroom practice. Also, Cummings (2011) and Samaras and Roberts (2011) outlined small case studies of self-directed PD activities where teachers reported results that transformed their practice.

One pioneer of self-designed learning for educators, what he calls 'self-study'[4], is John Loughran. His work has concentrated on the learning of teacher educators, but his assertion that self-study can "give more voice to the professionals engaged in the practice of teaching" and that those involved in studying their own practice at all levels "are quite capable of identifying, generating, understanding, theorizing, and communicating" (Loughran, 2007, p. 15) their learning is convincing. He warns that those doing reflective work are often those planning and

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[4] 'Self-study', in Loughran's work, is an educators' purposeful examination of their teaching practice in consultation with other educators (Loughran, in Aubusson and Shuck, p 173).

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reporting it, so transparency, honesty, and public disclosure of learning is important to retain

accountability and to seek the voices of disconfirming opinions of others. He also notes that

these processes "draw upon some of the essential features of complexity science" and that the

self-design of PD activities "facilitates the self-transformative phenomena" (Loughran, 2007, p.

18).

In a case study of secondary mathematics teachers in the United States, Slavit and

McDuffie (2013) reported that the "self-directed nature of the PD had a generative effect of

producing more strategies to continue learning from and in practice", that the teachers involved

"demonstrated awareness of broader educational contexts" as they brokered their own

professional learning, and that "open pathways directly to administrators who can provide

support" were important in this process (pp. 101-104). Even more recently, and in a pan-

Canadian study, Campbell et al. (2017) found that teachers reported that their autonomy in

decision-making surrounding their professional learning has been recently *decreasing*, despite

Canadian researchers' findings that "teacher leaders themselves have called for an approach to

'flip the system' from top-down governance to a system where teachers have opportunities to

exercise collective autonomy, professional judgement, and leadership of educational change"

(Elmers & Kneyber, 2015 as cited in Osmond-Johnson et al., 2018, p. 33). In a very recent

research report focusing on Alberta by some of these same researchers (Osmond-Johnson,

Zeichner & Campbell, 2018) teachers reported a lack of autonomy in PD decision-making, and

that "system-led and mandated forms of professional learning in many instances dominated

teacher learning opportunities [; participants argued] for a more balanced approach that allowed

for additional teacher-led learning" (p. 20). This recent study also found that across Alberta PD

"access and availability depends on district and school leaders' commitment to collaborative,

job-embedded, teacher-led professional learning" (p. 21). Although these studies advocate for

PD that focuses on student outcomes, they readily acknowledge that more than test scores must

be considered, and that aspects of student learning that include such indicators as student

confidence, personal responsibility and motivation, and also personal and cultural identity

(Campbell et al., 2017) are all considered to be important learning goals that teachers have for

their students. As well, they report that when teacher confidence and engagement increased

during collaboration and inquiry, many indicators of more effective pedagogy also increased,

and that at least one Canadian PD organization (in Ontario) stated that "the need to support

changes in teachers' efficacy, beliefs, and practices before improving students' efficacy,

expectancy, and achievement" (Campbell et al. , 2017, p. 31) was crucial in any PD enterprise.

Teacher control may be an essential ingredient for professional development that is

responsive and that encourages teacher agency and engagement. Autonomy in design of PD is a

crucial and emerging concept for facilitating learning by teachers. Many researchers in the field

of teacher PD have asked for more study in the area of self-direction (Adey, 2004; Beatty, 2006;

Hirsh & Killion, 2009; Randi & Zeichner, 2004; Webster-Wright, 2009), especially asking for

studies of longer duration, that use several data collection methods or collect more than one type

of data, and studies that compare self-directed PD cohorts with those who do not self-direct their

PD experiences. Some have specifically asked for studies of teachers' agency in learning and

development (Pyhältö et al., 2015). This study is a response to these calls.

Complex, but not Completely Chaotic?

If those who study PD have come to any common ground since the early 1980s, it has

been that it may be perilous to ignore any factor that affects PD. Professional development is

now understood as a complex, many-faceted, social, and affective domain, with a resistance to facile answers to the question, 'What works?' The emergence and importance of autonomy as a basis for asking teachers to become engaged change agents in a system that is both structured and post-structural presently defines efforts to create opportunities for teachers that they will find meaningful.

Agency and Engagement

Professional development has a proximate goal of teacher learning, but "what should teachers learn?" and "How should they 'develop'?" or "What should they become?" are difficult questions at best. Teachers learn in many life and professional situations, and what they learn may or may not align with the stated goals of a PD activity. Teacher learning can be formal or informal, abstract or applied, embedded (or situated) in the workplace or off-site. Habermas (1984 [1981]) classified learning as instrumental (learning to improve performance of tasks), impressionistic (learning to enhance one's impression on others), normative (learning the customs and values of a group) and communicative (learning to understand meaning in a particular situation). Because learning is so divergent in its manifestations and definitions it is difficult to measure holistically. When considering teachers and their learning, measurement of one or a few parameters (i.e. standardized test scores of students, student attendance, teacher attendance, teacher content knowledge, student reading levels, etc.) will not capture all the learning that might have occurred. Because teachers must learn many things, it might not be practical or even desirable to narrow the range of what is considered to be evidence of teacher learning.

Instead of trying to determine *what* teachers learn, whatever form that learning may take, the position I take in this thesis is that we can and should consider parameters that suggest that the teacher is willing and able to learn, and that he or she values that learning as something that is useful for transforming their practice. This, I argue, extends consideration of what is effective PD beyond instrumental measures to include the affective world of teacher attitudes toward their learning and their practice as others have advocated (Hoban, 2005; Jörg, 2011; Zeichner & Gore, 1990). Korthagen (2017) calls this 'Professional Development 3.0' to distinguish it from first attempts to train teachers into behaviours (1.0) or attempts to convince teachers with academic theory (2.0). The field is beginning to pay attention to research about teacher learning in PD that has repeatedly shown what most practicing teachers already know intuitively; that teacher learning is complex, multi-faceted, and often involves gradual shifts in understanding and practice. Professional development 3.0 advocates conclude that only via "individualised and long-term investments [in the teachers who are doing the learning] can individual concerns and gestalts be addressed. And only then is it possible to take personal qualities and ideals as the starting point for learning" (Korthagen, 2017, p. 400).

A more inclusive approach to evaluating the worth or effectiveness of teacher professional development then could be to correlate PD paradigms ('conventional' or more transmissive and 'top-down' vs. 'self-directed') with teachers' expressions of engagement in these learning activities and their perceptions of their agency considering their professional development experiences. Agency and engagement are parameters that reveal if teachers are involved and in control of their learning.

Agency

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Agency is a term that has been defined variously depending upon the discipline, the study, and its application. Some see it as an individual trait: "having a sense of self encompassing particular values and a cultural identity, and being able to pursue self-determined purposes and goals through self-conscious strategic action" (Frost, 2006, p. 20). Most agree that agency involves an ability to act in a self-determined way, after considering the options available. Many see it as an exercise of social power (Bandura, 2001; Biesta & Tedder, 2007; Lasky, 2005; Leask, 2012; Pignatelli, 1993; Priestley, Edwards, Miller & Priestley, 2012).

Agency has been most extensively theorized in disciplines such as sociology, psychology, anthropology, gender studies, and education (Eteläpelto, Vähäsantanen, Hökkä, & Paloniemi, 2013). The social sciences often juxtapose agency with structure (as in the structural constraints in a society) in debates about the forces that are most salient in social systems. Agential theories came about primarily as a reaction against behaviourism in the 1950's; environmental constraints put boundaries on our social behaviour, but any action that was not determined by these constraints was agential (Giddens, 1984). This dualism seemed insufficient to describe this concept, and it was not long before many researchers studying social systems began to understand that the relationship between agency and structure cannot be captured by such a simple description. Giddens (1984) presumes that an actor who has agency is confined (and enabled) by a range of circumstances both within and around them, but that they do have the capacity to act upon their worlds and "make a difference" (p. 14). This type of action involves an exercise of power that has "transformative capacity" (p. 15), albeit in ways that work with rules and resources that already exist in the institution or social situation that the person inhabits.

Pierre Bourdieu's concept of *habitus* offers a more integrated view of agency. Human action can be seen as "practice" — a type of "situated" consideration in which "the objects of knowledge are constructed, not passively recorded, and, contrary to intellectual idealism, that the principle of this construction is the system of structured, structuring dispositions, the *habitus"* (Bourdieu, 1990, p. 52). Bourdieu believes the concept of *habitus* eliminates the need to pick sides between structuralism and subjectivism and allows for much greater explanatory power for human behaviour. *Habitus*, Bourdieu argues, allows for the existence of free thought and creativity, phenomena that other theories of human behaviour find difficult to explain. This synthesis of many types of histories in the individual, including those of past generations, those of one's upbringing, and those of societal structures and norms all come together in such a "durable, systematic and non-mechanical way [through an] acquired system of generative schemes, [that this] makes possible the free production of all the thoughts, perceptions and actions inherent in the particular conditions of its production — and only those" (Bourdieu, 1990, p. 55). In Bourdieu's view the concept of agency mirrors what research into teacher learning has also shown; that all human activities, including teacher learning, must be considered in terms of the "constant interplay between choice and constraint in the process of learning" (Zeichner & Gore, 1990, p. 26).

The debate about how human agency differs from free will has been fodder for philosophers as far back as Plato and Aristotle, but a view of agency that considers the effect of past experiences on perceptions and the ability to predict certain outcomes (but not others) as part of what we consider to be human agency has evolved over time (O'Connor & Franklin, 2020). Emirbayer and Mische (1998) proposed a definition of human agency that sounds similar to Bourdieu's in its consideration of many, but not unlimited possibilities: "[agency is] a

temporally embedded process of social engagement, informed by the past (in its habitual aspect), but also oriented toward the future (as a capacity to imagine alternative possibilities) and toward the present (as a capacity to contextualize past habits and future projects within the contingencies of the moment)" (Emirbayer & Mische, 1998, p. 963).

There are several characteristic components of human agency that have consistently been described in the literature and that can be used to help the researcher to recognize when it is emerging or present in a particular context under study. In the paragraphs that follow, these components of agency are italicized. These components are used later to organize the criteria used to evaluate teacher agency in the data collection and analysis phase of this study.

Human agency is often conceptualized as an individual trait (Bandura, 2001; Emirbayer & Mische, 1998; Frost, 2006; Leask, 2012; Pignatelli, 1993; Priestley, Biesta & Robinson, 2012). Central to this idea of agency is the individual's sense of control over their work environment. As such, the concept of *self-efficacy* is central: "Efficacy beliefs are the foundation of human agency. Unless people believe they can produce desired results and forestall detrimental ones by their actions, they have little incentive to act or to persevere in the face of difficulties" (Bandura, 2001, p. 10).

In addition to self-efficacy, the capacity to see that a particular situation needs change is also a crucial component of individual agency. This capacity to evaluate past situations or actions and to predict future outcomes is a uniquely human dimension that some have termed forethought (Code, 2010), but to fully conceptualize this concept as looking both forward and backward in time, it could be more adequately called *self-reflection* (Abrams, 1998). Thus, an

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agential teacher "considers how power, identity, subjectivity, and freedom intersect and inform each other" (Pignatelli, 1993, p. 412).

These two essential components of individual agency are often not sufficient to describe human agency at work in social systems. In many situations, people do not have direct control over their environments, and thus "do not live their lives in individual autonomy" (Bandura, 2001, p. 75). Bandura (2001) describes that when there is "interactive, coordinative, and synergistic dynamics of their transactions", collective agency emerges. Bandura sees collective agency as an "extension" (p. 75) of individual agency, not a separate phenomenon. It is "not a group mind that is doing the cognizing, aspiring, motivating and regulating. There is no emergent entity that operates independently of the beliefs and actions of the individuals" (p. 76) in the social system.

Human agency has been explored from a collective perspective by some researchers, especially in highly social environments (Archer, 2003; Bandura, 2001; Lasky, 2005). Individuals who are able to find common ground by sharing their values and beliefs in a situation of trust can become very powerful. Archer (2003) posits that individual agency, although necessary, is not enough: "we need to extend the community of communication and adopt the universalist point of view of the generalized other so that we can criticize existing societies from the point of an alternative, more inclusive and more democratic society" (p. 6). This type of synergistic analysis of structural leeway and constraint allows individuals to have a closer understanding of both the perspectives of others and the potential for collective action. This type of social power increases the "aspirations and motivational investment of the group in their

undertakings, … [their] staying power in the face of impediments and setbacks, … [and] their morale and resilience to stressors, … and performance accomplishments" (Bandura, 2001, p. 14).

Human agency then can be seen to be interdependently individual and collective; part of an "integrated causal structure" (Bandura, 2000, p.77) that can effect social change. Eteläpelto et al. (2013), term this type of integration of individual and collective agency "subject-centered life course agency" from a sociocultural perspective and consider that "intention and reflexivity" (p. 53) are two important components. As with individual agency, the first step is being able to comprehend environmental constraints and opportunities. A *reflexive* group adapts to the needs of the individual members, while using the multiple perspectives available to allow for an emergent view of the social environment that may be more than the sum of its parts. Once a situation is re-imagined *intentionality* can occur, which is when the actions of the group are deemed to be possible and desirable and are operationalized — plans made to put these actions into place (Eteläpelto et al., 2013).

In Finland, recent research has become intensified around the concept of agency in educational learning and development. Pyhältö et al. (2015) for example, attempt to define a teacher with agency as "an active learner who is able to act intentionally, make decisions, and thoroughly reflect on the impact of one's actions… [including] the capacity of teachers to construct the context of their learning" (p. 814). These researchers also realize that agency in educational systems must involve adaptation to situations but also "well-justified opposition" (p. 814), taking initiative, and "transforming dominant power relations" (p. 814) within the school community.

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Because agency is a complex and multi-factorial concept, as previously described above,

for this study I identified major components of what I call the agency parameter into a diagram

(See Figure 2). The agency parameter is defined by four components: self-efficacy, self-

reflection, reflexivity and intentionality, as indicated in italics in the previous paragraphs.

Arising from each component are criteria — short summaries from the literature as described

above that explicate what each component might 'look like' as the data are analysed. This

organization of several criteria for each component was done to help me to interpret how and if

agency was being reported or emerging as I analyzed the data. Figure 2 diagrammatically

outlines how these components were organized in this thesis for operationalizing agency so that

it might be explored.

So, individual and collective agency can encourage transformational change in schools

congruent with both individual and group moral perspectives (Bandura, 2001; Edwards, 2007;

Sannino, Daniels & Gutierrez, 2009). As an added advantage, "when teachers believe they are

members of a faculty that is both competent and able to overcome the detrimental effects of the

environment, the students in their building have higher achievement scores" (Goddard, Hoy, &

Hoy, 2000, p. 503). Hence, teacher agency is important to understand and study further.

Constraints on Teacher Agency. If teacher agency has been theorized to have much

promise for educational improvement, it may be that teachers have had little opportunity to

develop the type of "robust professional discourse" that allows them to "locate their work within

deep consideration of the purpose of education" (Biesta, Priestley & Robinson, 2015, p. 638).

The development of teacher agency has been linked to the ability of teachers to consider

their purpose and values when making educational decisions. In environments where this type of

consideration is discouraged, teachers show few signs of advocating for educational change and

their discourse is instrumental. Teachers in this type of restrictive environment have reported

viewing the process of advocating for change as a form of resistance that would be negatively

received by their educational system (Biesta, Priestley & Robinson, 2015). However, when

educators were supported and encouraged to "[d]well in the object, connect and reciprocate

across boundaries" and develop "reflexivity" in their professional discourse, "distributed agency

Parameter   Components   Criteria
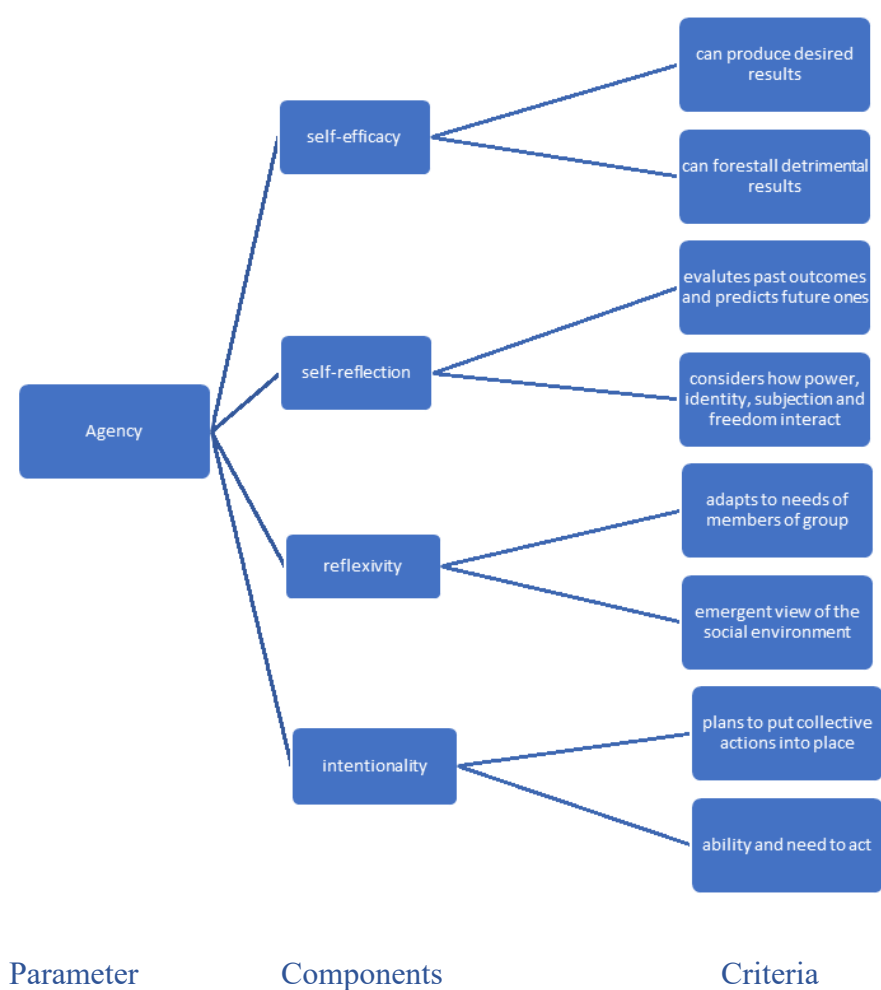
Figure 2: Agency Components and Criteria

emerged expansively" — in other words, the participants became involved with the problem and each other in order to find creative solutions and eventually expanded their successful program to new situations and environments (Yamazumi, in Sannino et al. , 2009, p. 226).

Constraints to teacher agency are part of the working environment (i.e. the rules and customs of this activity system as explained in Chapter 3), and are thus structural. Timetables, school calendars, designated PD times and days, distances between schools and school districts, and the availability of technology and other tools put physical limits on what and how teachers learn. Budgetary constraints also limit teachers' abilities to move out of their classrooms and work with others, as this time may not be considered productive as it is time away from students. Vongalis-Mackrow (2007) describes constraints like these as teacher "obligations" to their school and to their students, often consisting of "accountability and regulatory tasks, coupled with tighter controls of teaching work" (p. 431). In addition, "Other areas of authority, such as deciding curriculum, standards and educational goals, were for the most part left to other educational agents" (p. 433). Thus, "policy checks the profession by insisting that teachers can be treated like a quality product, updated, shaped and remodelled to fit the demands of delivering education" (p. 436).

Although researchers have recently been advocating for professional development programs that reduce structural constraints on teacher agency (Calvert, 2016, Zeichner, 2019), and some recent studies have made some attempt to address teacher agency in professional development systems (King & Nomikou, 2019; Phillpot & Oates, 2017), studies that foster agency by allowing teachers autonomy to design and implement their own learning experiences without enforcing a structural boundary (e.g. PLC's or supervision by consultants or academics)

are not found in the research literature. It seems that, although teacher autonomy and agency are

seen as important components of teacher PD, constraints such as guidance by 'experts' like

university facilitators (King & Nomikou, 2019) or imposed formats (Phillpot & Oates, 2017)

remain evident in recent studies, even as the authors note that these constraints limit teacher

agency. Of course, in my study some constraints on teachers remained, such as time, funding,

and the structure of the PD days in the calendar, but teachers were given no expressed 'limits' as

to how or what they could learn, were not supervised or advised by experts or consultants, and

were not required to meet any systemic accountability measures to prove that they were learning.

By studying a system before and after these constraints to teacher autonomy were removed, this

study constitutes a novel approach to the study of teacher agency in PD.

Engagement

In this section, I describe how and why teacher engagement is an important component

that supports teacher learning, and separate it into components that have been established in the

research literature. Although the term engagement is sometimes used as part of the definition of

agency (Emirbayer & Mische, 1998), recent scholarship has suggested that engagement in the

workplace is a separate concept that can be both theorized and measured independently of

agency (Bakker et al., 2011). Commitment and energy form the backbone of the concept. Those

who are engaged in their vocation are "willing and able to invest themselves fully in their roles;

[they] are proactive and committed to high quality performance" (Bakker et al. , 2011, p. 5).

Research into the concept of workplace engagement has led to the view that there are

three separate components that can be said to be included in the parameter of engagement:

"*vigor, dedication, and absorption*" (Bakker et al., 2011, p. 5, emphasis added). Each component

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helps to promote the conditions necessary for positive feedback that act to further increase

engagement. Workplaces with high job demands are more likely to stimulate engagement,

independent of whether the psychological state of the worker is positive or negative in the work

environment. Workplaces with high engagement *and* positive attitudes are also able to positively

affect how teams function in organizations (Bakker et al., 2011). In general, "engaged employees

have psychological capital, seem to create their own resources, perform better, and have happier

clients" (Bakker et al., 2011, p. 17). Each of the three components of engagement is

multidimensional: "*vigor*, [is] characterized by high levels of energy, effort, resilience,

persistence, and motivation to invest in the work; *dedication*, [is] characterized by involvement

in work, enthusiasm, and a sense of pride and inspiration; and *absorption*, [is] characterized by

immersion in one's work and the sense of time passing quickly" (Mills et al., 2012, p. 521,

emphasis original).

Recognizing the importance of workplace engagement led to the development of a

standardized scale, the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006), that

has been extensively tested and statistically analysed for reliability and validity. (Handelsman,

Briggs, Sullivan & Towler, 2005; Mills et al., 2011; van den Berg, Bakker, & ten Cate, 2013).

(See also Appendix 3: Utrecht Workplace Engagement Scale) In Figure 3 these established

components and criteria that indicate engagement as validated through the UWES have been

summarized as a diagram similar to the one constructed for agency, and, as with agency, this

diagram was used to operationalize the concept of engagement so that it could be explored in the

data.

Engagement is a parameter that is often cited as a precondition for learning (Christenson, Reschly, & Wylie, 2012), or an outcome of the learning process (Sklaavik & Sklaavik, 2014). In this study, and as a basis for what is reported in the literature, I consider engagement as a parameter that is crucial for teacher learning, and one that can also be affected via teacher learning experiences congruent with the model suggested and tested by Schaufeli et al(2006).

These learning parameters (agency and engagement) are complex and interwoven. For example, a recent study found that, "independently of each other, teacher self-efficacy and perceived autonomy positively predicted engagement and job satisfaction and negatively predicted emotional exhaustion (Skaalvik & Skaalvik, 2014). The separation of the components of agency and engagement, as I have done, allows for the criteria (descriptions of what types of data would 'fit' into these categories) as evident in the literature to be interpreted from data and consequently used as a means to communicate how agency and engagement may be expressed both before and after an intervention. In this study the intervention was a change in the rules that allowed teachers more autonomy to self-direct their professional development experiences.

As with agency, it has been reported that indications of engagement are more frequent if teachers are acting in accordance with their underlying value systems, that is, when teachers perceive that what they do is in accordance with their core beliefs about the purpose of education. Several studies have shown that teachers report increases in work engagement when they experience high 'value-congruence' — in other words, when their values line up well with those of their educational systems (Dylag et al. , 2013, Sortheix et al. , 2013). Teacher autonomous motivation (that is, teacher motivation being internally driven and not as a result of

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outside pressure) has also been linked directly to teacher work engagement (Li, Wang, You &

Gao, 2015).

Teacher engagement then, is a parameter that is important for and is influenced by

teacher learning activities. This study contributes to the literature surrounding teacher

professional development as it considers how self-directed PD might affect teacher engagement

in their learning activities.

Parameter   Components   Criteria
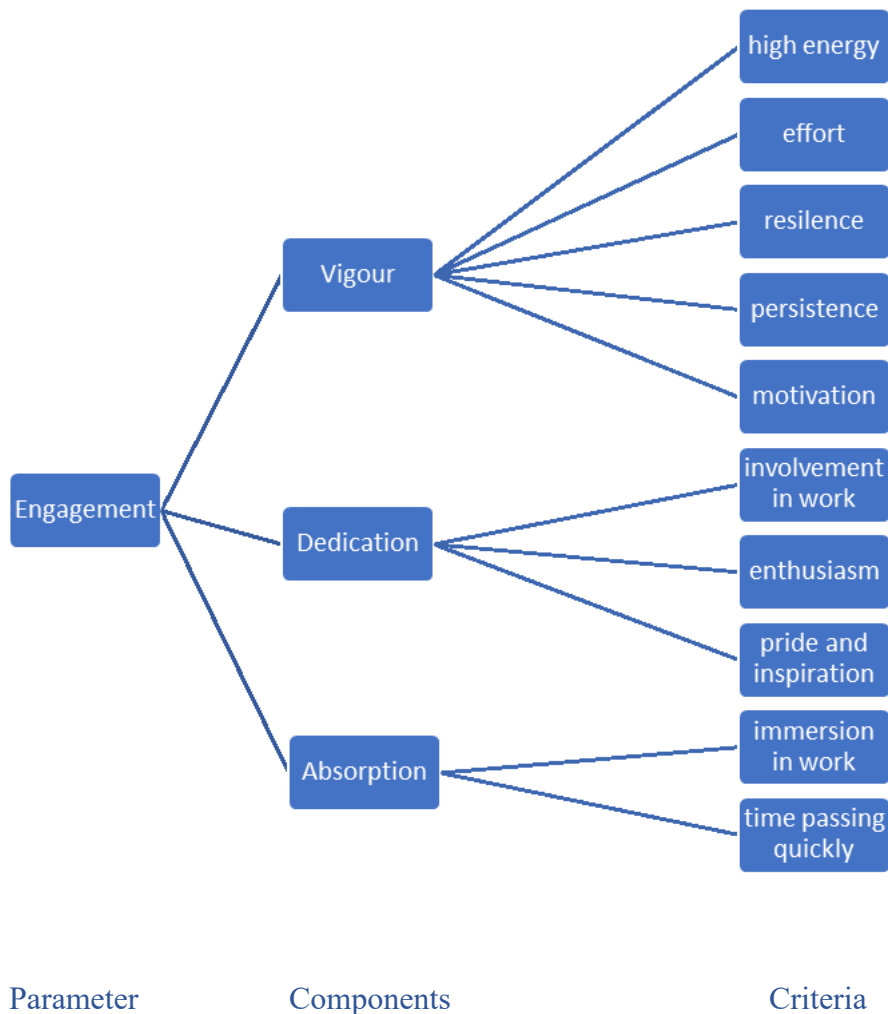
Figure 3: Engagement Components and Criteria (Adapted from the UWES: Schaufeli et al.,

2006)

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Summary: Teacher Agency and Engagement

Teacher agency and engagement in professional development have been considered in the literature surrounding teacher learning since the 1980's, and although both the veteran researchers and recent reports and reviews advocate for more teacher autonomy in their learning process, it seems that in many places, including Canada and Alberta, there is no coordinated effort to support teacher autonomous, self-directed professional development (Campbell, 2017; OECD, 2013). Some recent research (Osmond-Johnson et al., 2018)) reveals that teachers actually are reporting decreased autonomy in their PD experiences.

Agency has been shown to be an important aspect of professional work, especially in work that involves "creative and human-centered domains" (Eteläpelto et al., 2013, p. 46). It was previously established that professions are typically defined partially by their authority over decision-making, and autonomy in professional development (Ingersoll & Merrill, 2011). Teacher agency has been shown to be a type of social power that manifests when teachers feel that they have some autonomy over their learning environment, both individually and as a collective. Its components, self-efficacy, self-reflection, reflexivity and intentionality have each been found to be important to the learning process for teachers.

Engagement, while somewhat suggested to be intertwined with agency in learning situations, is also a parameter that can be separately evaluated. It "emphasize[s] the individual's role as an actor who will decide what problems are worth solving and with what degree of energy" (Eteläpelto et al., 2013, p. 56). Engagement thus also involves autonomy in teacher decision-making. Considering engagement (including its components of vigour, dedication and

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absorption) in teacher professional development also allows for a holistic consideration of teacher PD that considers teachers' willingness to learn.

"What makes PD effective?" has been a question that has proven difficult to answer, as it is difficult to measure complex effects. Although most research advocates for student outcomes to be considered, few can agree on what outcomes to measure or how to tie a particular PD experience to student change. However, there is increasing acknowledgement that considering the teachers' social, affective and motivational worlds, as this study does, in the design and evaluation of PD is crucial for any type of teacher learning. This study does not attempt to measure or evaluate the effectiveness of PD, instead it considers the teacher as a professional who can and should identify what and how to learn in their unique context and for their unique set of needs. This approach requires a shift in perspective toward teacher autonomy that, although increasingly present in the literature surrounding PD, is not typically seen to be essential to the process. Considering teacher agency and engagement instead of instrumental measures of PD effectiveness then, indicates a shift toward teacher professionalism that has typically not been considered as part of the process of improving educational systems.

It was important in this study to use an organizing framework that allow for the complex interplay of factors described above to be elucidated. Activity Theory is a perspective that has been used in complex environments (e.g. human use of technology, leadership analysis, labour market organizations, even a fish hatchery (Sannino et al., 2009)), including educational systems. Activity Theory can allow agency and engagement to be considered within this socio-cultural system: teacher professional development. In the following chapter, I outline how Activity

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Theory is used in this study of self-directed professional development and how agency and

engagement fit within this theoretical framework.

Chapter 3: Theoretical Perspective: Activity Theory

Activity theory is the lens through which I have chosen to view the educational context of this study. In the first part of this chapter, I outline some relevant history of Activity Theory and describe why this is important for an understanding of how this theory informed this study. Following that, I describe how I have defined the activity system in this study, and then describe how I see the parameters of agency and engagement are positioned and operate within this system. At the end of this chapter, I explain how the concepts of agency and engagement, and the goals of systemic change in educational organizations, are grounded in often unexamined and tacit values that underpin these systems.

History of the Theory

Activity Theory (AT) or Cultural Historical Activity Theory (CHAT) has its origins in Russian psychology in the 1920's. This theoretical perspective was originally based on Marxist ideology and has been termed 'paleo-Marxist' (Adler, 2006), as it was popular in Russia in the early part of the twentieth century, was not extensively used for several decades (1950s until the 1980s), and then was brought back into mainstream academic discourse during the 1990s, mostly by Scandinavian researchers in new areas such as technological adoption and innovation, workplace dynamics and educational systems (Engeström & Kerosuo, 2007; Kaptelinin & Nardi, 2006).

The basis for Activity Theory is Marx's dialectical materialism, wherein Marx criticized the scientific approaches (i.e. behaviorism) to analyse human action as lacking because "cognition was considered then only as the result of the effect of objects on the recognizing subject" (Leontiev, 1981, p. 12), which isolated the human experience from the living, practical

ties that they had with their environments. For Marx, the study of activity was key to overcoming

this barrier to understanding human beings. Practice, in other words, is the basis for human

cognition and cognition does not exist outside of the life process that is material and practical.

"People, developing their material production and their own material contacts, change their own

activity and their own thinking and the products of their own thoughts at the same time" (Marx

& Engels, 1980, p. 18). Thoughts and consciousness, then, develop only as a product of

interaction with real life; they develop *with* the environment in which people interact. This forms

a system of various infrastructures and processes that should be studied with a systematic

approach, which is not purely metaphysical (or abstract), psychological (or purely subjective) or

scientific (or objective) in approach.

Using Marxist principles, Lev Vygotsky (or Vygotskii), working in the 1920's and 30's

in Soviet Russia, maintained that culture and society are generative forces involved in the

production of what psychologists call 'mind'. He held that culture does not have a direct effect

upon the mind, rather that human action and the mind that causes that action develop and occur

within an historical and cultural context. Studying human beings then, cannot be done in

controlled experiments, but must be done in context by way of testing 'interventions' — this

being the origin of the idea of 'action research' (Argyris & Schon, 1996, as cited by Kaptelinin

& Nardi, 2006, p. 41).

Vygotsky is known for his learning construct called the 'Zone of Proximal Development'

(ZPD). Here, learning happens according to the "specific mediation provided by a teacher or

more experienced peer" (Kaptelinin & Nardi, 2006, p. 211). The difference between what the

learner can do alone and what they can do with the help of this mediator is this 'zone'. Since

both parties bring different experiences and abilities, each ZPD differs and thus the learning of

each of the parties also differs from any other learning experience. This assumption may also

hold for larger group situations and the emergence of creativity. Here, creativity would be

thought of as an "internal restructuring of a problem representation" (Kaptelinin & Nardi, 2006,

p. 212). Conversations between insightful people with differing perspectives may help individual

group members to reframe their thoughts and thus contribute to new insights of the group as a

whole. This does not dismiss the power of the individual to enact change in the system; rather it

claims the opposite; that "individual intentional subjects as a creative agent" can act either

independently or within and with a group, but in all of these cases they act within and through a

social context: "There is no lone genius" (Kaptelinin & Nardi, 2006, p. 214), but there are

individuals with agential power in groups, and these individuals are often named in order to

personify the individual in order for his or her contribution to be absorbed into the collective

system. The individual is empowered then, by their interactions with others in the learning

process. Later in this chapter (Figure 7) it will be shown how this type of learning can be

analysed as part of an activity system.

Aleksey Leontiev was a student of Vygotsky and as such he worked within his paradigm

of situated activity as fundamental to understanding human cognition and behaviour. In fact, the

concept of activity for Leontiev was an analytical tool useful for developing a theory of the

'mind' or 'psyche'. Eventually the concept of activity was developed further by Leontiev and his

colleagues to be perceived as something that can meet the needs of a Subject. In other words, the

Object motivates the Subject (Kaptelinin & Nardi, 2006). The proximate cause of activity is

directed toward immediate aims (e.g. typing on a keyboard is to write something), but the

ultimate cause of activity is the motivation toward a broader goal (e.g. creating a bestselling

novel). This may fulfil certain needs in the Subject such as the proximate need for money or the

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more social need for recognition or admiration from a larger group. What Activity Theory does

for theorists like Leontiev, is to bridge the gap between motivation and action.

The terminology (proximate, Subject, Object, activities, actions) becomes important as

these terms are often used in everyday language to mean quite different things. In Activity

Theory, for example, actions, activities and operations are all carefully defined. Each of these

can be arranged in a hierarchy, with the top layer the activity itself, oriented toward a motive,

which is directed toward the Object. This motive is what stimulates or excites the Subject into

fulfilling their needs. However, human activities are often not so straightforward. Activities may

be composed of a sequence of steps, all of which are goal-directed, but may not be immediately

visible as steps toward the Object. However, these may summatively or otherwise combine to

allow the Subject to attain the larger Object. These smaller steps are actions in Activity Theory

parlance. Actions can in turn be made up of operations, which are more routine processes that the

individual may not even be conscious of. Examples of operations include shifting gears in a car

or walking, both of which can become somewhat automatic with practice, in order to move

toward the store (an action) which eventually result in obtaining food, the larger goal. Individual

actions or operations may not be understandable unless viewed in terms of the entire activity

system. Here lies the efficacy of this theoretical perspective. Theories that atomize human action

or motivations will have difficulty explaining larger phenomena due to their myopic view of

subunits of the whole activity.

The challenge in Activity Theory is not then, to drill down into specifics to find sources

of human behaviour or motivation, but to understand the larger contexts — social, historical,

cultural and local — that are leading to goal-directed and Object-directed human activity, both

individually and collectively. Since, as was proposed in Chapter 2, teacher professional

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development has been conceptualized as being just such a socially constructed, historically

influenced, context-dependent activity (Avalos, 2011; Scribner, 1999; Toom et al., 2015), this

theoretical perspective is both appropriate and useful for this study.

The Structure of Human Activity

Kaptelinin and Nardi (2006) succinctly describe: "Activity theory is an approach in

psychology and other social sciences that aims to understand individual human beings, as well as

the social entities they compose, in their natural everyday life circumstances, through an analysis

of the genesis, structure, and processes of their activities." (p. 31). This would seem to be an

ambitious goal — to look at human beings both as individuals and as parts of social and

historical systems, and it is. But the unit of analysis, activity itself, allows for a dialectical

analysis that is not possible for approaches based on the individual (psychological) or on the

group (sociological) alone.

$$S \longleftrightarrow O$$

Figure 4: Basic Representation of Activity (S: Subject, O: Object) (Kaptelinin & Nardi, 2006, p. 30)

In Figure 4 we see the core of an activity system — the back and forth interaction

between the Subject and the Object. These two constructs are key to understanding the activity

system. What is meant by the Subject has been a matter of discussion in relation to Activity

Theory (Engeström, 2014). In this study, the Subject is considered to be the individuals within a

collective. In Activity Theory the collective Subject is an "change agent", the individuals that

comprise it feel that they belong to a collective entity with which they identify, and thus

collective "responsibility" becomes possible (Engeström, 2014, p.80). When Activity Theory is

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used to study a sociocultural system, as in this study, the Subject is often referred to as a collective entity, but studied via individual perspectives.[5]

Because a collective Subject cannot exist independently of its individual members, it can disappear if individuals decide to stop fulfilling the collective activity that the Subject members participate in (Lektorsky, in Sannino et al., 2009). This is reminiscent of Vygotsky's Zone of Proximal Development, where individuals can learn more, and more efficiently, in the presence of "more capable peers" (Veresov, 2017, p. 27), and supports the premise that much if not all learning is socially constructed (Veresov, 2017).

The Subject and the Object in Activity Theory are in 'dialectical interaction' with each other, therefore "contradictions are the driving force of transformation. The object of an activity is always internally contradictory. It is these internal contradictions that make the object a moving, motivating and future-generating target" (Engeström, 2014, p.77). Paying attention to places where these areas of tension exist in an activity system is thus important. Contradictions are circumstances or happenings that have "change potential" (Engeström, 2000, p. 964) in an activity system. Contradictions can be seen to be negative by the Subject, but changes in activity systems are driven by them. Contradictions are "developmentally significant and exist in the form of resistance … emerging dilemmas, disturbances, and discoordination" (Roth & Tobin, 2009, p. 114). In this study, expressions from teachers that indicate where and when tensions exist or arise as teachers attempt to shift to a more autonomous type of professional development

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[5] Engestrom defines the Subject as a collective entity. Leontiev, in contrast, using Activity Theory as a construct in individual psychology, saw the Subject as the individual, but did not see the Subject as separable from the collective. Both see individuals as inseparable from their activity system (Kaptelinin, 2005).

model will be noted as contradictions as the data is analysed as spaces where agency and

engagement are either thwarted or supported in this system and discussed in Chapter 6.

'Dialectical interaction' (i.e. the back-and-forth changes that the Subject makes on the

Object which then causes changes in the Subject in a continuous process) can be observed in this

study. The Subject delineation in this activity system is relatively clear; the teachers who

participate in professional development (specifically self-directed PD) in this school system.

These individuals are all part of a clearly defined collective, and have many of the same rules,

hierarchies, have access to the same tools, and share a collective history. They are individuals

that form communities, and their learning is socially constructed. They are the Subject.

The Object of an activity system has been defined in simple terms as "what we are

working on and trying to transform" (Edwards, in Sannino et al., 2009, p. 198), or "the target or

content of a thought or an action" (Kaptelinin, 2005, p.6) but as an analytic construct it is more

than this. Some discussion has centered around the difficulty in translating this term from its

original Russian; into Scandinavian languages that commonly use Activity Theory, and into

English. Recent definitions, considering these discrepancies in language redefine the Object as

"'the sense-maker', which gives meaning to and determines values of various entities and

phenomena" (Kaptelinin, 2005, p. 5).

In this study, the Object is teacher professional development and especially in this case,

self-directed professional development (SDPD), since this is the 'sense-making' construct in this

activity system. Autonomy in teachers' professional development might lead teachers to self-

evaluate and also evaluate the activity system within which they operate with a more holistic

sense of their own values and history and begin to understand how their system is constraining

them and their students, and how it may be transformed to become more congruent with their

beliefs, passions and desires — for their own learning and that of their students. If this occurs, in Activity Theory terms, the Subject and Object, in dialectical interaction with contradictions, have productively interacted and in so doing, moved toward the broader goal, which I have defined for this study as a shift in teacher agency and engagement with respect to PD.

These two constructs (the Subject and the Object) are always in dynamic interaction. As the Subject strives to achieve its Goal, the actions of the individuals within this group change and modify the Object itself. These changes in turn modify the Subject and how they approach the Object in the future. When applying the construct to teacher professional development, teachers take what they learn and apply it to their classrooms and their interactions with their students. In turn, this Object (SDPD) is modified. These modifications work back upon the Subject to change how the participants see the Object (and possibly bring them closer to the Goal) in the future. This constant interaction is at the center of how activities enact change according to Activity Theory.

Activity, as the central construct of this theory, is important to define, but also difficult to pin down. Leontiev (1981) acknowledged that "separate concrete types of activity may differ among themselves according to various characteristics, according to their form, according to their emotional intensity, according to their time and space requirements, according to their physiological mechanisms, etc. The main thing that distinguishes one activity from another, however, is the difference in their objects" (p. 62). In this study, the Object changes during the course of this interventional study, from mostly administratively directed professional development to self-directed professional development. This is congruent with the "redefinition of the object to meet the new constraints" (Kapetelin, 2005) that happens in activity systems when the system has been altered by new 'mediating artifacts', in this case, the releasing of some

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of the former constraints to professional development in this system; a change in the rules or

customs.

In the 1980's Yrjo Engeström and his colleagues in Scandinavia elaborated on Leontiev's

simple model of an activity system, using it to analyse collective systems (Leontiev's model was

applied to more psychological or individual activities). Congruent with the Vygotskian Russian

model, this revised model proposed activity as socially and culturally defined. In order to

facilitate analysis, Engeström added mediating constructs or factors, which he sees as essential to

analysis of an activity system (Figure 5).

Mediating Artifacts

Subject   Object
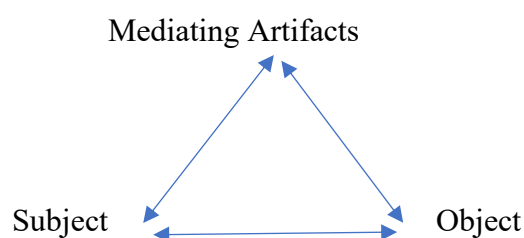
Figure 5: Vygotsky's Model of Mediated Act (Engeström, 2001, p. 134)

Mediating factors include the concepts of tools (or 'artifacts'), community, hierarchies

(or 'division of labour')[6] and rules (or 'customs') that help (or hinder) the members of an activity

system to achieve their Goal, but also may allow participants to better see internal dissonances or

contradictions. These mediating factors can also enable (or constrain) the Subjects' movement

toward the Object (hence the double ended arrows connecting the factors). Subjects can be

grouped into communities, which have internal rules or customs which mediate between the

Subject and the community. The system may also have a hierarchy or other division of labour

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[6] Some of these terms – artefacts/tools and hierarchies/division of labour are used interchangeably depending upon the author, his/her first language, and the translation.

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which in turn mediates between the community and the Object. Tools, when present, can

expedite the process, but when absent or poorly designed, can hinder the progression toward the

Object. The process can also produce or use artefacts or tools, which are virtual or real products

of the activity system that again, mediate between the Subject and the Object. The assignment of

labels to each of these activity system components are, in effect, the assignment of a "working

hypothesis" (Engeström, 2000, p. 965) that facilitates the analysis of the system as a whole (See

Figure 6).
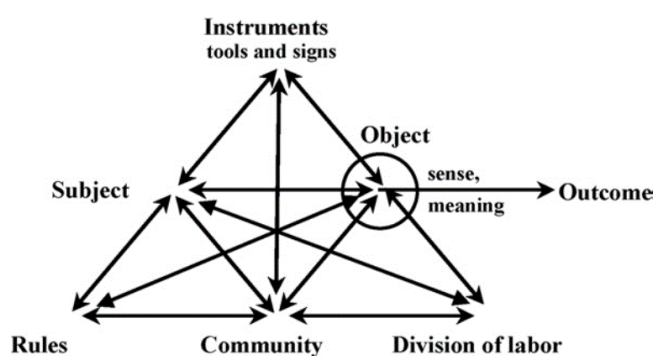
Figure 6: The Structure of a Human Activity System (Engeström, 1987, p. 78)

Activity Theory differs from other theoretical perspectives in that the researcher studies

the process in question holistically, but looks at the structural supports or barriers at work that

influence the activity, and it includes the study of the Goal (or Outcome) that accompanies

activity. The Activity Theory model constructs "can be seen to function as sign-creating anchors

for contextualizing multiple practice-bound experiences of different practitioners, including the

researchers" (Engeström, in Sannino et al., 2009, p.271).

Figure 7 identifies and highlights structural features of the Activity System under study,

in this case teacher professional development in a school system. The figure serves to scaffold

observations so that each construct (also called mediating factors or artifacts, e.g. 'community')

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can be foregrounded for analysis as data is analysed. In this study, as previously described, the

Subject was the teacher participants, the Object was self-directed teacher learning; and the

overarching Goal defined in this study was that teachers would express that they considered

themselves to be agential and engaged in their professional learning activities. As outlined

below, this process may lead to learning that enables further systemic change.

The tools were both physical (computers, buildings to meet, etc.), and also, more

importantly, organizational. In this study, Professional Growth Plans (PGPs) for example, are

tools that teachers are required to use to plan their professional learning goals and actions for

each school year. Tools are sometimes called 'artefacts' or 'artifacts' in Activity Theory, and

these would include aids to learning and also products of teacher learning such as teacher

resources, databases, or planning documents.

The Activity System Under Study — Professional Development in a School District
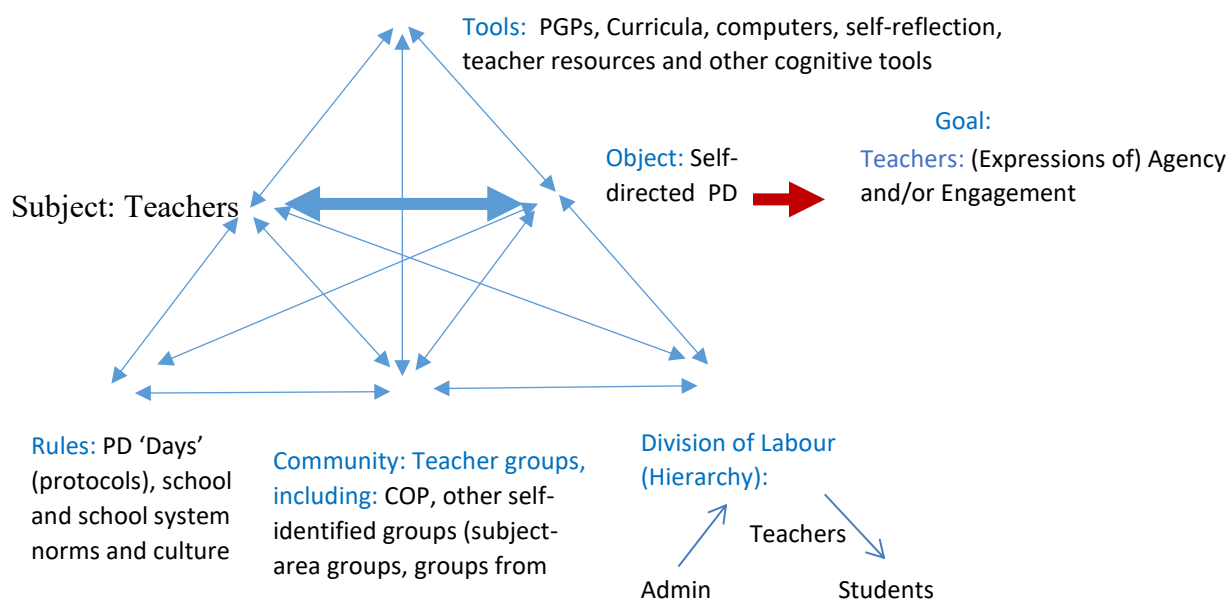
Figure 7: Professional Development in a School System (Adapted from Engeström, 1987)

Contextual factors at the bottom of the pyramid may allow or disallow the activity to move in certain directions. Customs, rules, and norms significantly impact teacher behaviour, as do the types of community that form in this activity, including the larger communities, and the smaller practitioner groups. In this activity system, the communities considered are the teacher communities; other communities (e.g. parents, students, administrative groups, etc.) are excluded as in this context they are considered to be nested either within or as parts of overarching activity systems (see Figure 8).

The division of labour in this activity system had both lateral (or on an equal authoritative level) divisions and hierarchical ones. Laterally, those teachers without administrative positions assumed different roles depending upon their areas of specialization (e.g. subject area for high school, grade level for elementary school). Although these divisions were often used by teachers to find SDPD groups with which to participate, these groupings were considered as part of the community construct in this study. The hierarchical (or authority) structure of the activity system will be considered in this construct; this authoritative structure can and did have effects upon the teachers' ability to do SDPD. Since teachers were, in terms of authority, in between the administrative level and the student level in terms of power, they were constantly negotiating this terrain.

Activity system 'triangles' are typically shown with a single-ended arrow between the Object and the Goal or Outcome. In this activity system, it could be argued that the relationship between the Goal (or Outcome) and the Object could be reciprocal. If the 'sense-making' Object, self-directed professional development, does lead to the goal of teacher perceptions of agency and engagement, I would suggest that this outcome could work back upon the Object and

eventually be able to thus affect the other parameters in the activity system, most notably, the Subject. Changes that this type of learning may exert on the Subject may then catalyse further changes in the system, conceivably including changes in the artifacts produced and used, the community, the hierarchies, and even more changes in the rules or customs surrounding teacher professional development in this system. As described later in this chapter, this type of accelerating change in systems has been termed a 'runaway object' by some activity theorists (Engeström, 2006).

The activity system in this study consisted of smaller groups and individuals performing their project activities, which are activity systems in their own right. Activity systems are thus what is referred to as 'nested'. At the same time, the larger educational activity system, for example the Alberta education system, and the public sphere, which is also a larger activity system, function outside of the activity system I am considering, but still influenced it. These larger systems make up the 'environment.' Having larger, over-arching activity systems with progressively smaller ones within it illustrates this nested nature of human activity systems (Jonassen & Rohree-Murphy, 1999).

In Figure 8 we see that this activity system is indeed nested in a number of other, larger activity systems. The larger group of teachers of this school district (this study samples only three schools), the system that encompasses the provincial bodies that govern education (e.g. the government of Alberta department responsible for schools — Alberta Education), and even larger systems like the entire population of Alberta, etc. are also operating in this environment. While these larger systemic influences are acknowledged to exist, they are not specifically being considered in this study, in order that these factors (factors further removed from this system) do

not overwhelm this researcher's capacity to look at teacher professional development in this context.

In addition, activity theorists acknowledge that other activity systems also occur within the one under study. Each classroom can be considered as an activity system, as can be each subject-area department within a school, and each individual school. The boundaries of these activity systems are both apparent and fluid. However, considering the activity system as outlined in this study (Figure 7) allows this study to have a defined perspective, without becoming overwhelmed with detail from smaller (e.g. individual departments or schools) or larger (provincial) activity systems at work in this environment.
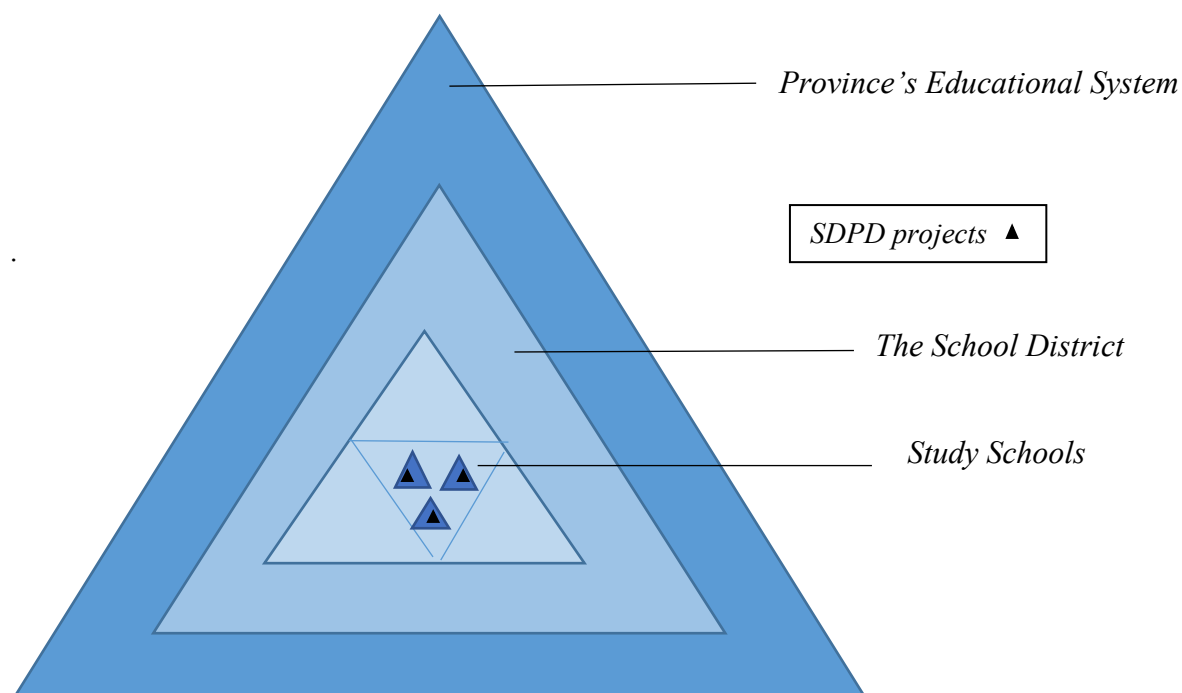
Figure 8: The Nested Nature of this Activity System

The Subject in this case is collective as the teachers worked together in small self-directed PD groupings (which are smaller activity systems) but consists of individuals (as

discussed previously in this chapter) that are part of the PD system in this school district. The

customs, rules, and hierarchies are of this school district are similar in all the schools and for all

of the teachers, and the community is also interconnected by the school district and its policies.

As previously mentioned, there were three schools participating in this study. The individuals

that make up the Subject are all 'certified'[7] teachers, but there are a few that identify with other

roles as their primary job: principals, assistant principals and guidance counsellors. These

participants all belong to the group termed 'certificated staff' in this school district, and all fall

under the same collective agreement for employment overseen by the ATA (Alberta Teachers'

Association). I collectively refer to them as the 'teachers' in this study.

In summary, the context these participants operate within, including, in the activity

system under study, this school system's PD protocols, norms and cultures (the rules or customs)

and the hierarchy of roles with teachers between administrators and students (the division of

labour) are all factors that constrain or free actors in this system. The tools used by the

participants (physical ones like computers or books, as well as organizational ones like

Professional Growth Plans) also affect the teachers' progress toward the Object (SDPD) in this

study. Larger, overarching activity systems like the Alberta educational system also affect the

participants in this activity system, although considering their effects is beyond the scope of this

study. Table 1 outlines the Activity Theory constructs and how they have been defined in this

study context.

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[7] Hold a valid Alberta Teaching Certificate

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Table 1: Constructs in This Activity System

Construct	Identification in this Activity System	Description of construct in this context
Subject	Teachers in this school district (at three schools under study)	Three schools (one elementary rural and two suburban high schools) within this school district All participants are certified teachers, some working in administrative roles All participants have volunteered and gave informed consent to participate in this study within these schools
Object	Self-directed Professional Development	Teachers were allowed to opt out of 'organized' PD events and activities During dedicated PD times, teachers were could plan and implement their own learning strategies and events, alone or with other teachers, experts, etc. Few other guidelines or rules were given — allowing participants to explore without barriers
Goal/Outcome	Teacher perceptions of Agency and/or Engagement	Teachers indicate that they are engaged and/or express indications of agency with respect to their learning
Community	Groups of teachers that the teachers who participate in this study can and do interact with	Groups of teachers formed within this system for learning purposes Smaller groups of teachers within this activity system; For example: Communities of Practice, less organized groups of teachers (pairs working together for example), teachers from same school who communicate regularly, subject-area specialist groups, etc. Larger educational groups — the ATA, Alberta Education, etc.
Rules or Customs	School and school system regulations and practices	Several layers of formal rules: provincial, district and school-based surrounding teacher learning experiences Some rules/customs are implicit and more or less understood by all participants in the system (e.g. what is *not* professional development)
Tools or Artefacts	Digital, physical, organizational tools or products that aid, guide or are produced as a result of PD process	Digital: computers and internet tools like Google drive to share ideas and resources, and to communicate. Physical tools: curricula, school buildings and equipment Products (artefacts) include lesson plans, teacher resource materials. Professional growth plans (PGPs)
Division of Labour or Hierarchy	School system hierarchy	Clear hierarchy in this system (list from top to bottom in terms of authority): Provincial governing bodies (Alberta Education), School Board (or district), School Principal, School Assistant Principals, Subject-area Coordinators, Teachers, Students

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Knotworking and Mycorrihzae — Learning from the Ground Up

It may appear that using Activity Theory to study complex human systems could over-simplify or falsely impose structure onto such complex contexts. But a deeper understanding of Engeström's vision of Activity Theory is needed to understand its power as an analytic tool.

Activity systems are inherently historical in that they build and move upon previously existing structures and tensions, and it is now common in organizational research to acknowledge that "institutional stability possesses challenges to changes in the associated activity system or to particular forms of practice" (Roth & Tobin, 2009, p. 127). In order for change to occur within institutions, individuals working collectively can form loose and ever-shifting small networks that challenge and even subvert the existing structure of an activity system. Engeström notes, after years of studying organizational dynamics, that in many workplaces, meaning and motivation are missing from the workers' worlds. He calls this existential vacuum a "breeding ground for alternatives" (Engeström, 2006, p. 1786). Engeström proposes the term 'knot-working' to describe the collaborations that occur within an activity system that "take shape without strong predetermined roles or central authority" (Engeström, 2006, p. 1786) and often are grounded in values and purposes that the members of the group share. These loose structures defy commercialization, control and coordination from central bodies. Engeström states that in these types of "swarms" or "run-away objects," "the center does not hold" [8](p. 1786), a phrase meant to convey the difficulties conventional institutions are experiencing in controlling their members with traditional structures and rules.

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[8] From the famous poem by Yeats – "The Second Coming" -- https://www.poets.org/poetsorg/poem/second-coming

Engeström (2006) compares these loose, but often unpredictably influential "knot-works" to a mycorrhizal relationship in a forest. A mycorrhiza is a (usually) mutualistic relationship between a fungus and trees in a forest where the fungus invades the roots of the trees and the surrounding soil and extracts minerals from the soil that are taken up by the trees as nutrients. The trees supply the fungus with sugars and other products of photosynthesis. Mycorrhizal relationships have been found to be foundational for forest health, although their importance has only recently been established, being difficult to observe or even measure because of their broad distribution and microscopic (but collectively powerful) effects. For this study, the metaphorical trees and the mushrooms that may emerge are the stable 'fruiting bodies' and these correspond to the structural components of the activity system — in this case, the school district organization (trees) and the educational system as a whole(forest) — but the real work takes place underground, where the associations between the individuals in school systems mirror those in the natural world where the microscopic fungal hyphae connect the trees and other organisms and have intimate connections and communications throughout their networks, which can be very large. "Mycorrhizae are difficult, if not impossible, to bound and close, yet are not indefinite or elusive. They are very hard to kill, but also vulnerable" (p. 1788), especially because of their highly interconnected nature.[9] "Knot-working" and 'mycorrhizae' analogies are powerful metaphors for describing human social systems, and they can also aid in understanding disruptions to the system as well.

In this study, autonomously-forming teacher groups could be considered to be examples of the knot-working process, and this metaphoric language could extend to all of the sometimes

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[9]See http://sciweb.nybg.org/Science2/hcol/mycorrhizae.asp.html for more information about mycorrhizae.

independent, sometimes interconnecting groups in this complex network — like a mycorrhizae — that can communicate through (often underground or not explicitly stated) pathways, and that is both difficult to 'kill' or destroy in its functioning, but also vulnerable to insults that can cause damage to some parts of the network.

Tensions, problems, and conflicts within activity systems can be seen as part of the vulnerability mentioned above within the symbiotic system and are, as previously noted, called "contradictions" (Engeström, 2006, p. 1789) — places where the functions of the system are being challenged.

The ability of these small networks to form runaway objects as teachers become collectively agential and engaged in PD may be a promising avenue for systemic change. A runaway object is not different from the Object as defined previously in this thesis, and it is conceivable that a SDPD group or individual within one may indeed become influential and even subversive as their agency and engagement increase. The direction, form and eventual results of the change are not predictable. School districts and PD organizations, as we have seen in the literature on PD, have historically controlled PD, using it to advance change in school systems that meet top-down goals or targets. In this study, a change in the rules and customs in this activity system surrounding PD that allows for more teacher autonomy may eventually catalyse change of a more bottom up type. In Activity Theory terms, the change in the rules constitutes an 'intervention' and this study aims to notice how the Subject (the teachers) now interact with the Object (Self-directed PD) as they move toward the Goal (Agency and/or Engagement) in this altered activity system.

Agency in Activity Theory can thus be seen as "a capacity to work with others to expand the object that one is working on and trying to transform by recognizing, examining, and working with the resources that others bring to bear as they interpret and respond to the object… that involves mutually supportive action" (Edwards, in Sannino et al., 2009, pp. 208-209). Engagement is the *modus operandi* for change in an activity system. "Communicative engagements" (Yamazumi, in Sannino et al., 2009, p. 226) are the methods by which individuals and collectives work with the Object to transform it. Knot-working is the process of engaging with others. Used as a verb or a noun, engagement is the vital, energetic force that fuels the learning (and change) process.

Values Should Ground Teacher Learning

Throughout this thesis, I have referred to the grounding effects of teacher values on their learning. As is outlined in Chapter 2, professions are based upon values, they propel teacher agency, and are often considered in the literature on PD as important considerations for more responsive PD models. Values have also been considered as important in Activity Theory as crucial to the ways in which the Subject interacts with the Object. Explicating how values ground ideas and shape attitudes toward professional development is important — how (and if) individuals and systems understand their value systems underpins and thus has explanatory power for this activity system and ones like it.

Standards vs. Values. Research surrounding the development of teachers must necessarily consider larger questions about what teachers develop toward or into. Much discussion and research has been devoted to what an effective or good teacher is. However, as with other complex and multi-faceted socially constructed phenomena, these judgements are subject to

debate. Recently, there has been a trend in the international educational community to attempt to peg down the characteristics of an excellent teacher and express these in teacher quality standards or competencies. Notably, Britain, Scotland, Australia, and the United States, and in Canada, the Province of Alberta[10], have developed sets of standards that advocates call an "engine that pulls along the knowledge base of the profession" (Darling-Hammond, 2012, p. 142) or a "language of practice" (Mayer, Pecheone, & Merino, 2012, p. 118). However, problems have surfaced regarding these standards as the "goals, agendas and ownership priorities" (Mayer et al., 2012, p. 120) differ even between agencies within similar locales. Finding consensus as to what these standards should include has proven to be difficult.

Devising a list of teacher qualities or competencies is often driven by an "increasingly intense focus on outcomes, particularly student learning outcomes … as measured by standardized tests" (Mayer et al., 2012, p. 115). As such, this process is not necessarily grounded in, or consistent with, the more holistic and value-driven purposes that underpin education and this study.

My own position regarding this trend towards standards and competencies is that, instead of creating checklists of teacher quality standards or competencies, teachers should look to and clarify what values *they* hold and use these values to guide their own professional practice. Although consensus on what values are important in educational practice might be as difficult to achieve as consensus on teacher standards, the process of explicating the forces that drive or animate teachers, might help teachers to determine that what they really do think is important.

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[10] See: https://education.alberta.ca/media/3739620/standardsdoc-tqs-_fa-web-2018-01-17.pdf

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Who decides on the values that should be important for teachers? Alberta is no exception to the international trend in publishing teacher quality standards (TQS). For example, and excerpt from the 2018 Alberta TQS states that:

> A teacher engages in career-long professional learning and ongoing critical reflection to improve teaching and learning. Achievement of this competency is demonstrated by indicators such as: (a) collaborating with other teachers to build personal and collective professional capacities and expertise; (b) actively seeking out feedback to enhance teaching practice; (c) building capacity to support student success in inclusive, welcoming, caring, respectful and safe learning environments; (d) seeking, critically reviewing and applying educational research to improve practice. (Alberta Education, 2018)

This type of vision of the purpose of teaching and teacher learning is how teachers, and the educational system that surrounds them, decide where and when to focus efforts and resources. However, these ideas might not be acknowledged or discussed much by teachers after they leave their initial university training as the space for critical reflection is often taken up by prescribed learning experiences for practicing teachers (as previously discussed in Chapter 2). Although the government asserts the importance of critical reflection, statements like these mean little unless they are supported as a part of teacher practice.

An Alberta Teachers' Association policy document addressed the topic of values more explicitly:

Creativity, innovation, intellectual agility, teamwork, problem solving, flexibility

and adaptability to change are essential to the new economy. But if these skills are

all there is to 21st-century schools, they will convert personalization into mere

customization in a fast-forward world of temporary teamwork and swift solutions.

Twenty-first century schools must also embrace deeper virtues and values such as

loyalty, perseverance, courage, critical engagement, service, and sacrifice.

(Alberta Teachers' Association, 2012a, p. 2)

Which organizational or individual values take precedence in teacher practice? Because

both teachers and the larger systems they work within have no systemized way of considering

these questions, a coherent vision for the future of the profession and the progression of each

teacher's practice cannot develop. By extension, there has also been an inability to focus and

improve professional development frameworks in Alberta.

Those who look deeply at educational issues eventually inevitably come to consider the

moral/ethical dimension of education because "the purposes of education and schooling as a

formal institution in particular, are rooted in human desires and values. … As such, education

broadly conceived, formal schooling in general, and teaching in particular becomes a humanistic,

idealistic, and moral pursuit" (Parsons & Frick, 2008, p. 33). Considering moral dimensions:

obliges us to create and express a vision for a pedagogy of engagement. The vision

demands something of us, as teachers and academics, and attests to the moral courage

required to understand our work as precondition, means, and end to a fulfillment of human

purpose. (Parsons & Frick, 2008, p. 33)

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Standards-driven PD design is based mostly upon objectivist principles, whereas PD derived from a consideration of the moral and ethical dimensions, in other words a consideration of the values that underpin beliefs and actions, in educations lends itself to more constructivist design.

Activity Theory and the Social Constructivist Epistemological Stance in this Study

This study is grounded in a social constructivist epistemological perspective. Constructivist orientations consider reality to be determined by the knower and dependent on human mental activity. Constructivist understanding grows from a person's interaction with their perceptions and experience, and has characteristics that cannot be determined by knowing or using natural or physical rules in the world; it enables abstract thought and imagination.

Learning, from a constructivist perspective, acknowledges that learners will "acquire, select, interpret and organize information" differently and thus knowledge is seen within the context of "experimentation and dialogue", and "is the product of social interaction, interpretation and understanding" (Adams, 2006, p. 245). Applied to educational settings, "learners shape their own minds through their own actions within given socio-cultural settings" (Adams, 2015, p. 245).

More specifically, for *social* constructivists;

knowledge constructs are formed first on an inter-psychological level (between people) … consensus between individuals is held to be the ultimate criterion upon which to judge the veracity of knowledge and … learning becomes the development of personal meaning more able to predict socially agreeable interpretations. (Adams, 2006, p. 246)

Social constructivists create their reality from their interactions with others, and these constructions are necessarily value-laden. Since facts and values are interdependent, "there can be no separate observational and valuational languages" (Guba & Lincoln, 1989, p. 105). Constructions are often tightly held, especially if they involve deep value commitments. For this reason, substantial change in systems for individuals, and for groups who hold common values, can not be realistically considered without attending to those values and, as Guba and Lincoln (1989) suggest "honored" (p. 149).

This stance that constructions are value-laden and that change involves consideration of human values is congruent with the suggestion of Korthagen (2017) that "bottom-up", "value-based", and more "open-ended" professional development may be more "unpredictable than the traditional approaches, as it often requires deep cultural change", but it also "may in fact be the driving force behind any effective form of teacher learning" (p. 400). Bottom up PD involves self-directed exploration by teachers of their deeper motivations and aspirations, and thus the driving forces behind their learning goals. Self-directed teacher PD allows for teachers to be able to build their learning frameworks in accordance with their values, literally constructing meaning with each other and within their contexts.

Activity Theory and social constructivism share the approach "that active individuals construct knowledge in social interaction using mediational means" (Postholm, 2008, p. 38). By interacting with their communities, tools, hierarchies and the rules or customs in their social environment, a study participant is "looked upon as a conscious and active participant in the reciprocal activities that take place. This reciprocal connection means that the environment for actions has a prominent place in both [social constructivism and Activity Theory]" (Postholm,

2008, p. 38). In this study the environment includes the mediating factors considered in Activity Theory. Thus, social constructivist epistemological considerations could be seen to be congruent with, and supportive of, the Activity Theory organizational frameworks used in this study.

Summary of Activity Theory in this Case

In this study, having a self-directed professional development (SDPD) programme as an option for teachers in several schools within a school district constitutes an intervention (in Activity Theory terms) in an activity system. The establishment of SDPD opportunities as part of this activity system aimed to elicit changes in the Subject-Object relationship. Activity Theory is congruent with social constructivist epistemology, that allows the learner to pursue learning that supports their value systems.

Activity Theory: A Summary of its Strengths and Limitations

Strengths

Activity Theory is well-suited for this research, because it is designed for studying complex, highly social environments. Using Activity Theory, teacher professional development is studied as a situated practice — contexts, history and culture matter and are consciously considered as part of the activity. As well, the researcher and the researched can and do interact, and these interactions are part of the consideration, not set apart; more authentic consideration of the dynamic interaction between researched and researcher and their merging is permitted and actually desirable.

The triangular framework with its concentration on the Subject—Object interaction acts as an organizing scaffold that aids in visualizing how large amounts of data can be aggregated to show how interactions are occurring in such a complex system.

Limitations

One limitation of Activity Theory for this research study is that simplifying social relations is risky — the separation of components of the social world, i.e. the tools, the Subject, the Object, etc., can artificially constrain the analysis, especially because this classification does not necessarily consider the relative importance of each component. In any social activity, some components and relationships are more salient at some times than others. For example, in this activity system, some tools may be needed (e.g. computers or Professional Growth Plans), but since these tools are well-established in this particular system, these are typically not constraining factors in this system. We can discuss the particular uses of these tools, but their presence in this particular system can mostly be taken for granted. However, self-reflection, a cognitive tool, is important in this context. Being self-reflective as an individual and reflexive as a collective are both parts of the construct of agency and will be evaluated as such. So here the tool and one of the Goals (agency) are conflated. This shows how classifying systems can lead to somewhat artificial boundaries being placed on factors that influence the system. This can aid understanding, or it can misrepresent how one aspect of the system affects another. No framework that attempts to simplify relationships in human systems can do this without losing some of its complexity and dynamics.

Other components, for example the hierarchies in this system, may be quite important as limiting factors for some actors in the system, and important as enabling factors in other places within this same system. Making generalizations about these factors affecting the activity system can cause some of the subtleties of the relationships to be lost. Thus, careful attention must be paid to how classification of the components of activity is done, and the subsequent analysis of their interactions. Remaining cognizant of this potential for distortion of the interpretation of the activity was important. The analysis was the researcher's construction of the activity, an always interpretive process.

Another limitation is that this model has historical ties and built-in biases. For example, considering learning as a product produced with tools superimposes terms historically influenced by labour theory. Although it is necessary to have historical and cultural ties to the past, awareness of how these ties affect how the data is interpreted was important. A deep analysis of the activity system in this research must consider the teaching profession's relationship to some of these ideas inherent in this theoretical perspective.

As a relatively new paradigm in contemporary research, boundaries and definitions are still under some negotiation in Activity Theory scholarship. Terms used must be defined carefully and operationally, because these terms are used somewhat differently by different researchers.[11]

One important limitation of Activity Theory is its lack of attention to underlying reasons for human action. Although, as previously described, activity has been described as

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[11]For example, Activity Theory has been also termed Cultural-Historical Activity Theory (CHAT) and, more recently, Expansive Learning Theory.

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a way to bridge the subjective world with the social milieu that the actors inhabit, it may be difficult to ascertain how and why an intervention is operating or changing without considering human motivations as integral to the process. Activity Theory allows for systematic analysis, but leaves little room for these underlying motivations. Others have also noted this limitation (Roth, in Sannino et al., 2009), and have called for studies that consider values and 'ethico-moral dimension' in research that uses Activity Theory as a lens.

Activity theory was chosen for this study, even with these limitations because of its overall congruence with the social and contextually situated nature of teacher learning, and the methodological paradigm of this study.

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Chapter 4: Methodology

In this study, the research question "How do teachers' perceptions of their agency and engagement change after participating in self-directed professional development?" is being explored via qualitative research methods. In order to answer this question, a clear operationalization of the terms used was required. In previous chapters, self-directed professional development was described in broad terms as teachers choosing what and how they learn, with few constraints on this process. The existing research literature was used to explicate the parameters of agency and engagement with components and criteria defined and described in order that changes could be recognized when participants were expressing or otherwise indicating their perceptions of being agential or engaged. The Activity Theory constructs were also explained and described with respect to this study. This chapter describes how I used naturalistic inquiry methods, these operationalized concepts, and AT constructs to gather and eventually interpret data in this study.

Choice of Methods for this Study

Data were gathered in this study via semi-structured interviews and naturalistic observation over the course of one school year. These two data collection methods were chosen for two reasons: (1) to allow for modest triangulation of data and (2) to attempt to "enrich the database" and "provide not only additional information but also additional *dimension* to the phenomenon" (Saldãna, 2011, p. 76, italics in text).

Most of the interviews with individual teachers occurred close to the beginning of the study period (what I term the 'pre-intervention' phase) and close to the end of the school year (what I term the 'post-intervention' phase). Observations occurred throughout the

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study, including observations of SDPD projects as they occurred during PD days in this school system. In the next section, I describe each method in more detail.

Naturalistic Inquiry in this Study

Around the middle of the last century, the Chicago School of naturalistic inquiry began to study people, culture, and societies *in situ*; "finding them where they are, staying with them in some role which, while acceptable to them, will allow both intimate observation of certain parts of their behavior, and reporting it in way [that is] useful to social science" (Norris & Walker, 2006, as cited in Somekh & Lewin, 2006, p. 131). Naturalistic inquiry attempts to stay close to the language and contexts that the participants express, and to portray and represent them in "commonplace ways that they would understand and that would be understandable to others" (p. 133). Norris and Walker note that researchers who are not part of the community or who are otherwise unlike those studied may have problems empathizing and understanding the context in ways that insiders may not, because the 'self' is thought to be the actual research and interpretive instrument, so this should be a consideration in planning naturalistic research. Naturalistic inquiry also involves a capacity to observe one's self and critically analyse one's own experience (self-reflexivity) as a researcher. This type of inquiry is, as Norris and Walker (as cited in Somekh & Lewin, 2006) state, typically a "long-term and whole-hearted commitment" (p. 133) to exploring the world of a community or other group of people.

This study borrows from the naturalistic inquiry tradition, although admittedly the study was not of long enough duration (for pragmatic purposes), and the researcher not embedded enough, for participants to be truly 'natural' in this study. These participants

knew the length of the study (10 months), they knew of (or knew of professionally) the

researcher, and when they were being studied. This period of study did not occur for long

enough for the subjects to become habituated to the presence of the researcher. Still, the aim

was to get as close as possible to the participants and their professional lives considering the

time available, in order to understand how the 'intervention' allowed for SDPD and how

this manifested, and also to observe contradictions and other barriers they were experiencing

to PD that they considered to be relevant and meaningful. Since I was a practicing teacher

within this district as the study was happening, I was part of this community, and this

allowed for the research instrument, me, to have considerable similarity to those being

studied. This research positionality was advantageous because I was able to see the

participants' world and their customs from a perspective close to it. However, this was also

limiting, as I explain when I address the quality considerations that were considered in this

research (discussed later in this chapter).

Naturalistic inquiry needs a highly adaptable instrument because as constructions

arise, the instrument used to collect data should be able to adapt. Guba and Lincoln (1989)

consider the researcher to *be* the instrument:

> Humans collect information best, and most easily, through the direct employment of
>
> their senses; talking to people, observing their activities, reading their documents,
>
> assessing the unobtrusive signs they leave behind, responding to their non-verbal cues
>
> and the like. It is for this reason that qualitative methods are preferred. (Guba &
>
> Lincoln, 1989, p. 175–176)

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This particular study is also an example of "backyard" research (Creswell, 2009, p. 122). There are advantages to studying your own cultural, and in this case institutional, context. The insider can perform:

> a role within the community being researched [and] can develop a greater understanding of the experiences and social realities of the members of that community, as they occupy the same physical spaces, engage each other in shared activities and discourses, and encounter the same rules and regulations. These shared experiences can result in greater levels of trust and more opportunities for joint construction of meaning, while still respecting differences. (Coupal, 2005, para. 6)

However, there are risks that an inexperienced researcher in this situation may be unable to identify some of the institutional norms and practices as they have become habituated to them and are not questioned, "anymore than the goldfish does his (sic) bowl" (Coupal, 2005, para. 16). Experienced researchers suggest that careful reflexivity and attention to power relationships combined with clear informed consent are key to addressing these concerns (Coupal, 2005). In Chapter 6 these concerns and power relationships will be addressed as they arose in the data collection and analysis process, acknowledging that they can never be fully mitigated.

Naturalistic Observation

Since I was a practicing teacher in this school district at the time of data collection, I was already a part of this professional community. I cultivated relationships with participants both as part of my professional role as a teacher and as part of my role as researcher. The participants were aware that I was collecting data in my interactions with

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them, albeit "*discreetly*" (Takyi, 2015, p. 869, italics in text) during normal activities, allowing participants to interact normally but with awareness that the researcher is making observations. I interacted with these teachers throughout the school year, both as a teacher and as a researcher, and made observations (which I recorded in my research journal) whenever these encounters were relevant to this study. The advantage of this perspective was that "[a]s the researcher gains the confidence of informants, they become more willing to open up on issues" (Takyi, 2015, p. 869) with the researcher. Since I did not actively work on a daily basis with most of these teachers and was coming into their PD situations as an invited guest, I was not as active as a participant as would normally be the case in a participant observer role. However, I also interacted with these participants in an on-going way when invited (not just for a single observation), and the role I took was more than a passive observer, as participants interacted with me freely during my observations (for example, making comments to me or asking me questions), and I was considered to be an 'insider' throughout my interactions with these participants, making my role less "detached" (Takyi, 2015, p. 866) than a typical naturalistic research observer. This role was a balance between forming close enough relationships with participants to gain their trust, and remaining detached enough and aware enough of the process to prevent "going native" (Kanuha, 2000). Since I was a member of this community during and prior to this study this was a potential problem, one that can only, in this case, be mitigated by close self-reflection and subsequent debriefing with my supervisor and committee.

By researching the professional development of teachers, I was studying the activity of practitioners who have a culture, a set of norms and values, and a history that makes their community unique. A significant part of this culture could be termed the practical

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knowledge of teachers; how teachers express what they know in classrooms and with others

in their professional community. This knowledge might be difficult to elucidate by

individual interviews alone. In naturalistic observation of this type, researchers can be more

effective if they immerse themselves in the culture and become accepted by the group as

one of them (Angrosino, 2008).

The primary way of recording my observation data was a research journal that I kept

throughout the research process, beginning with the first meetings with administrators to

plan the process and ending with the end of the study in June. I took extensive notes as I

interacted with all levels of this school system and often recorded quotes from participants if

I thought they were salient. As mentioned previously, I made plans to observe as many

SDPD projects as I could on PD days, and on other days (operational days and exam week)

that teachers did SDPD (See Table 2 for a summary of these observation sites and

durations). I also saved emails from and to the participants in the study and collected

evidence of artifacts or products that were produced. For example, I saw and made notes

about google docs, spreadsheets, and samples of student work. I kept copies of PGPs that I

was given as I interacted with the participants in my research journal with their permission.

Table 2: Summary Table of Participant Observation of PD Projects and Dates

Date	Teacher's School and Duration (approx.)	SDPD Project Summary
August 29, 2014 (Operational Day)	School A (1 hour)	Science department: International Baccalaureate: community building
October 10, 2014 (PD Day 1)	School A (1 hour)	International Baccalaureate Chemistry teachers: cross-district collaboration

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October 10, 2014 (PD Day 1)	School A (1 hour)	Physics/Math teachers: cross-disciplinary course proposal and planning
October 10, 2014 (PD Day 1)	School A (1.5 hours)	Career and Technology Studies: cross-district collaborative community of practice
October 10, 2014 (PD Day 1)	School B (2 hours)	English Language Arts : interactive journals: cross-grade collaboration
January 29, 2015 (Exam Break)	School A (2 hours)	Career and Technology Studies: woodworking teachers: cross-district workshop
January 30, 2015 (PD Day 2)	School A (1 hours)	Science department: International Baccalaureate community building
January 30, 2015 (PD Day 2)	School C (1 hour)	'Take and go science': Science teacher portfolio project
January 30, 2015 (PD Day 2)	School C (1 hour)	English department: collaborative grading and essay assignment planning
January 30, 2015 (PD Day 2)	School B (2 hours)	English Language Arts : interactive journals: cross-grade collaboration
January 30, 2015	School B (1 hour)	Guidance counsellor suicide intervention and counselling
March 6, 2015 (PD Day 3)	School A (1.5 hours)	Science department: International Baccalaureate community building
March 6, 2015 (PD Day 3)	School C (1.5 hour)	Junior-Senior High collaborative woodworking jig project
March 6, 2015 (PD Day 3)	School C (1 hour)	English department: collaborative community of practice

The Intervention

The use of the term 'intervention' is unusual in a qualitative study. It is clear, however, that this terminology is part of the Activity Theory lexicon.[12] In fact, Virkuunen

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[12] The word 'intervention' is used over 130 times in Sannino , Daniels, and Gutierrez (2009) *Learning and Expanding with Activity Theory* – a seminal text on modern AT research.

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(in Sannino et al., 2009) describes research that uses Activity Theory as its interpretive lens as a process where:

> The researcher[,] following the interventionist research methodology of developmental work … help[s] the practitioners to take the necessary epistemic actions and to engage themselves in expansive learning activity. The researcher, together with the practitioners, produces data that helps them to question the current practice and to analyze it systematically in order to reveal the historical and systemic causes of current problems. (p. 153)

So, in research that employs Activity Theory as a lens, an intervention is defined simply as "purposeful action by a human agent to create change" (Midgley, 2000, p. 113) and the results are seldom linear and are co-determined by the participants in cooperation with the researcher. In this study, the intervention took place as the rules surrounding PD were altered to allow teachers to self-direct their professional development experiences for one school year (September to June). Below and in Table 3 the sequence and timeline for the intervention, and the subsequent data analysis and dissertation writing, is outlined. Appendix 5 outlines in more detail the rules for PD in this school district before this study began, and the changes in the rules that occurred in the study schools in this study.

Sequence of Events during the Study Period. In late August/early September of 2014 I presented the concept of self-direction in professional development by reading the information letter and consent form at the first staff meeting of the school year in each of the three participating schools (See Research Journal Notes: Appendix 7). I described what these SDPD projects might 'look like' (e.g. that they could be done as individuals and/or

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groups, that projects were allowed within the same school or outside collaboration was also allowed with other principals' permission, that the work could occur on regularly scheduled PD days, that permission of school district's administration to miss regularly scheduled events had been obtained, that teachers had the option to blend self-directed with regular or non-self-directed PD sessions, that alignment with PGPs was possible and preferable, etc.) The principal of each school was present at these meetings and all three principals expressed support for the study.

At these initial staff meetings, study information letters and consent forms (hard copy) were distributed to all staff and they were encouraged to complete them that day or that week (as soon as possible) for pick up later. At both of the high schools, the number of possible participants was approximately 65[13], and at the elementary school the number of possible participants was 9, including principals, other administrators, and guidance counsellors (who all are required to possess valid Alberta Teaching Certificates and thus are referred to collectively as 'participants' or 'teachers').[14] A designated collection person (who was not an administrator) agreed to collect the consent forms for me from each school without reading them. I also encouraged teachers to send them to me via inter-school courier mail if they were at all concerned about confidentiality in this situation. I received three via courier from one school, three from the second school and none from the third school. I encouraged both those interested and those not interested in self-directed professional

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[13] This is the approximate certificated staff number for each school, taken from staff lists available online, although they were not counted at these meetings.

[14] Some 'classified' staff – support staff such as secretaries, lab technicians, etc. also chose to participate in SDPD with the permission of their principals -- these 'non-certificated' staff were not included as part of this study.

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development to participate in the interview and observation parts of the study orally when I was reading the information letters to all staff at these first meetings.

I then compiled a list of participants that had given consent to use their data and used this list as a subsequent contact list and to send information periodically (via password protected email with bcc[15]). Once I had the list of participants, I purposively sampled the participants and contacted those chosen for interviews (13 initial teachers plus four administrators and one counsellor, for a total of 18 interviewees). The teacher interviews were conducted early in the school year, ending before the end of October of the year of the study.

Several days prior to the first PD day (and subsequently as well for the rest of the PD days for this school year), I emailed all the consenting participants, reminded them that they could do self-directed professional development, and asked them to contact me if they would like me to observe their projects (See Appendix 8: A selection of emails to participants). Several participants contacted me before each PD day and invited me to observe their projects, and I observed as many of these as I could, making a plan for the day to travel to each school on these days as efficiently as possible.

For each visit, I introduced myself if necessary, and thanked the participants. Then I joined the group and participated in their activity, if they asked me to join in or comment. I used my research journal to make field notes of the conversations, and, if applicable, the products produced. If participants did share their comments about the SDPD process with me, I recorded these comments as field notes in my journal before I left the school. I was

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[15] Blind carbon copy – participants could not see the other participants in the email address lines

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able to visit 3 or 4 SDPD sessions on each of the PD Days in this way. This surveying of PD

projects allowed me to see many examples of ways that teachers decided to do SDPD, but it

also prevented me from staying for more than an hour or two with each group of teachers. I

did return to see some of the projects more than once but, in many cases, I was able to

follow up with these teachers only in casual conversations as I encountered them during the

school year (I recorded what was mentioned in these conversations in my research journal),

and in the post-intervention interviews.

At the end of the school year (June 2015), I attended the last staff meeting of the

school year for each school, thanked each staff collectively for their time (and participation

if they participated). During the final exam period in June, I re-contacted the teachers that I

had previously interviewed and interviewed each one again using almost identical questions

as I had in the first interview (see Appendix 6 for Pre and Post-Intervention Interview

Questions). One of the participants was not available for a second interview, and two

participants asked to be interviewed that had not previously been interviewed in the pre-

intervention phase. I did interview these teachers and this data was included in the collective

teacher results. Two principals were interviewed only once — at approximately the

midpoint of the study, since by this point in the study these principals were seeing SDPD in

action, and their availability to me was limited by their schedules. Table 3 outlines the

timeline of events in this study.

Table 3:Timeline for this Study

Activity	Dates
Initial Exploratory Meeting with Superintendent	June 10, 2013

Meeting with Two Associate Superintendents	December 3, 2013
Candidacy Exam	April 22, 2014
Ethics Application Approved	June 23, 2014
CAPS Application Approved	June 25, 2014
Initial Meeting with 2 Participating Principals (Schools A and B)	July 2, 2014
Meeting with 1 Participating Principal (School C)	August 22, 2014
Initial Contact with Participants and Distribution of Consent Forms (Staff Meetings)	August 28 and 29, 2014
Pre-intervention Interviews (13 teachers, 1 assistant principal, 1 counsellor and one principal)	October, 2014
Interviews with two principals	November 2014–January 2015
PD Days (Observation of teacher PD projects)	October 10, 2014
	January 30, 2015
	March 6, 2015
Post-Intervention Interviews (14 teachers, 1 assistant principal, one counsellor and one principal)	June 3–29, 2015
Transcription of Interviews	July 2015–December 2015
Transcripts Provided to Participants for Review	January 2016

Selecting Schools and Participants. The sequence of events and how I chose the

three schools in this study is described in Chapter 5 in detail, but the participating schools

were a convenience sample (Etikan, Musa, & Alkassim, 2016); principals that were both

willing and supportive of having this study occur in the schools that they were responsible

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for were recruited by me through my professional networks. This sampling does not

represent the population of the entire school district since it is a non-random sample. As a

lower member of the administrative hierarchy in this school system I relied on previous

contacts and relationships in order to ask principals to release control over PD decisions to

teachers. Thus, schools were chosen for their principals' apparent support of the premise of

this study and my previous relationships and contacts with these principals, as the central

administrative staff made it clear to me that my study would occur in schools only with

principal consent (this will be described more in Chapter 5: Results). Table 4 describes these

schools in more detail.

Table 4: Description of Study Schools

School	Staff	Description of the School
School A	Approximately 65 teachers (some part-time), approximately 1100 students, suburban location, one principal, three assistant principals, three guidance counsellors	This school has a long history in the community, beginning as a one room school house and moving to its present location and building in the mid 1970's. Offering both vocational and academic enrichment programs, it is located in a suburban community (population approximately 70 000), and students come from this urban community and rural areas in this municipality
School B	7 teachers, 130 students, rural location, one principal, one guidance counsellor	This is the only school serving this rural community which is supported mostly through agriculture and oil and gas industries. The school is located in this small town and all students at this school are from this town or the adjacent rural areas
School C	Approximately 65 teachers (some part-time), approximately 1000 students, suburban location, one principal, two assistant principals, two guidance counsellors	This school is located in the same suburban municipality as School A and has a similar number of students. It also offers both vocational and academic enrichment programs, and was built in the mid-1980s. Students are from this urban community and the rural areas surrounding this municipality

I received 47 consent forms from teachers in this study in total (20 from School A, 9 from School B, and 18 from School C). This made up approximately 31%, 100%, and 28% of the possible teachers in each school respectively. In Table 5 the participants' role in the school system (although all are certified teachers), subject areas, experience level and gender are shown. The sample included an even gender split, and representation from almost all subject areas and grades possible in these participating schools. There were more experienced teachers than teachers with less than 10 years of experience sampled, and this corresponded roughly to the ratio of experienced to less experienced teachers available in these schools for sampling.[16] All of the elementary teachers taught at the rural school, while all of the high school teachers taught at the suburban schools. Since all of the elementary teachers participated, all grades from kindergarten to grade 6 were represented. Grades 10 to 12 were represented at the high school level, most teachers teaching all three grades. All three principals participated, as did one assistant principal and one guidance counsellor.

Since this study included only volunteers for SDPD, there was little representation from 'outliers' or participants who were opposed to SDPD — those who chose to participate were either supportive of the intervention or were ambivalent to it. As recommended by Creswell (2009) as part of the data gathering process, multiple levels of participants needed to be attended to (teachers at all levels of the hierarchy, age and experience spectra).

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[16] The average number of years of teaching experience for Alberta teachers in 2013 was 16 years (OECD, 2013). See: https://www.oecd.org/canada/TALIS-2013-country-note-Alberta-Canada.pdf

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Table 5: Participant Number Codes and Information

Number	Role	Observations	Interviewed (_intervention)	Subject or Level	Years of Experience (than 10 years)[17]	Gender
1	Teacher/Dept Head	2	Pre/Post	English	More	M
2	Teacher	2	Pre/Post	Elementary	Less	F
3	Counsellor	2	Pre/Post	Elementary	More	F
4	Teacher	1	Mid	CTS[18]	More	M
5	Teacher	0	Pre/Post	Science	Less	M
6	Teacher	0	Pre/Post	Social Studies	More	F
7	Principal	0	Pre/Post	Elementary	More	M
8	Teacher	2	Pre/Post	Elementary	More	F
9	Teacher	2	Pre/Post	Elementary	Less	F
10	Assistant Principal	0	Pre/Post	High School	More	M
11	Teacher	0	Pre/Post	Mathematics	More	M
12	Teacher	1	Pre/Post	CTS	More	F
13	Teacher	2	Pre only	English	More	F
14	Teacher	2	Pre/Post	Elementary	Less	F
15	Teacher	1	Mid	Science	More	M
16	Teacher	1	Pre/Post	Science	More	M
17	Principal	0	Midyear	High School	More	F
18	Teacher	0	Pre/Post	Science	More	M
19	Principal	0	Midyear	High School	More	M
20	Teacher	2	Pre/Post	Elementary	Less	F
21[19]	Teacher	2	None	CTS	More	M

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[17] Range of experience is not specific due to the possibility of identifying the participants by this information.

[18] CTS = Career and Technology Studies – vocational, artistic, practical, life-skills subjects are included in this classification.

[19] This participant is included as part of the naturalistic observation results only and was not interviewed.

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Semi-structured Interviews

Purposive sampling for interviews was done with two goals: to attempt to find informants that were representative of their roles in the system, and to attempt to obtain information from both typical and outlier respondents (Palinkas et al., 2015). In this study, I systematically chose to interview (from my larger pool of those who signed consent forms) teachers from as many demographic groups (experience level, subject area, leadership role, gender) as possible to attempt to cast the net widely and have broad representation of the participants. I also chose to interview those (2 participants) who were willing to be involved in the research process, but who were not willing to self-direct their PD to possibly capture dissenting views from those who were more supportive of the SDPD process. If I had been able to identify any participants who were actively resistant to the SDPD process I would have used these as negative examples, but I was unable to recruit any participants of this type, although it is likely that teachers did exist in this system that would fall into this category.

Semi-structured interviews were chosen to probe participants' experiences both pre and post-intervention, as the open-ended nature of such interviews allowed for participants to respond in ways that were "minimally affected by external influence or by suggestion emerging from the structure of the research instrument itself" (Palys & Atchison, 2008, p. 172). Giving each participant similar questions allowed for differences to emerge. These interviews followed the parameters listed as typical by Smith (2015): there is an attempt to establish rapport with the respondent; the ordering of questions is less important; the

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interviewer is freer to probe interesting areas that arise; and the interview can follow the

respondent's interests or concerns (p. 58).

In all, 35 interviews were undertaken with 20 participants, with all but three

participating teachers doing both a pre and a post-intervention interview. One interviewee

was unavailable for the post-intervention interviews. Two participants (4 and 15) requested

to be interviewed later (during intervention phase) and they were interviewed soon after

their requests, during the intervention but closer to the end. The data from these participants,

who did not have both pre- and post-intervention interviews, were included as support or

refutation of the pre/post-intervention data from the other participants. Since they described

both their PD experiences over the past years and the SDPD experiences they had

experienced in the intervention, their data was used to supplement the pre-intervention

findings when it referred to this time period and to supplement the post-intervention

findings when it referred to this time period.

Table 6: Numbers of Interviews Pre/Mid/Post-intervention

Interviews	Number of Participants	Participant Number Codes/Roles
Pre-intervention	16	13 teachers (1,2,5,6,8,9,11,12,13,14,16,18,20) 1 principal (7) 1 assistant principal (10) 1 guidance counsellor (3)
Intervention	4	2 teachers (4,15) 2 principals (17, 19)
Post-intervention	15	12 teachers (1,2,5,6,8,9,11,12,14,16,18,20) 1 principal (7) 1 assistant principal (10) 1 guidance counsellor (3)

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The interview questions did not directly refer to the research question. As is recommended for semi-structured interviews, the questions began by asking more broadly about the teacher's experiences, and gradually narrowed the topic down to ask about the teacher's experiences with professional development. These questions were open-ended and used neutral language as recommended by Turner (2010) to allow participants to express their views without being prompted by the interviewer (See Appendix 6 for a full list of interview questions).

Examples of Interview Questions (common to both principals and teachers):

Describe what you think would be the perfect professional development situation.

What barriers do you think are presently preventing teachers from pursuing their professional passions and interests?

The interviews were directly transcribed by me, and participants were supplied with their transcripts within 6 weeks of the final interview, so that they could add, delete or change any of their responses. None chose to make revisions.

In the post-intervention stage, the interview questions were kept as similar to the pre-intervention questions as possible in order to determine differences in the participants' responses before being encouraged to self-direct and after being encouraged to self-direct their PD (See Appendix 6). The interview questions began with general questions about the teacher's world and practice and 'funneled' down to include more specific questions about their perceptions of professional development (Faux, Walsh, & Deatrick, 1988).

Large amounts of data were gathered from the interviews, and the complexity and volume of the data meant that it had to be returned to many times as the data processing and analysis proceeded, and finally constituted into a form that could be considered to be a "persuasive and well-supported account, offering an insightful, useful and critical interpretations of a research problem" (Tonkiss, as cited in Seale, 1999, p. 380) for this study at this time by this researcher. Details of this process follow.

Thematic Analysis of Interview Data. Themes were generated in the data analysis process through a combination of inductive and deductive coding processes (See Figure 9 for a diagrammatic representation of this process). The data were aggregated into AT constructs through a process of deductive classification, where the constructs made up a framework within which the data was categorized initially. Within each AT construct, the quotes were then separated into pre and post-intervention groupings. For all of the AT constructs except the Goal (i.e. Subject, Object, Rules, Tools, Community, Hierarchy), each set of quotes (for example, Subject: pre-intervention) were open coded; an inductive search for common expressions from participants that was "a process of coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions. In this sense, this form of thematic analysis is data-driven" (Braun & Clarke, 2006, p. 12). This process allowed the teachers' conceptions of themselves and their PD experiences to be revealed through their own expressions in the interviews.

For the Goal of the activity system as determined by this research question, namely the change in teachers' expression of their agency and engagement with respect to their PD experiences, these two parameters had been theorized and operationalized from the literature prior to the data analysis as shown in Figures 2 and 3. The components and

criteria for agency and engagement were pre-determined, and, where appropriate, the

interview quotes were categorized within these categories, again separated into pre and

post-intervention groupings, and then themes were generated within these categories via

open coding. This allowed for these complex parameters, agency and engagement, to be

recognized in the data and for themes to emerge from the data in each criterion (when data

was present). This type of classification of data into a pre-existing framework has been

termed latent thematic analysis and described as happening when "the development of the

themes themselves involves interpretative work, and the analysis that is produced is not

just description, but is already theorised" (Braun & Clarke, 2006, p. 13.).

These decisions were congruent with my constructivist approach to this research, in

that this thematic analysis "does not seek to focus on motivation or individual

psychologies, but instead seeks to theorise the socio-cultural contexts, and structural

conditions, that enable the individual accounts that are provided" (Braun & Clarke, 2006,

p. 14.). Using the data to go "back and forth" in a "recursive process" (Braun & Clarke,

2006, p. 16.) of both deductive and inductive thematic analysis allowed for the very large

data set generated from the interviews to be analysed in a way that was "grounded in, but

go[es] beyond, the 'surface' of the data" (Braun & Clarke, 2006, p. 16).

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┌──────────────┐                                    ┌──────────────┐
│  Interviews  │                                    │  Acquiring   │
└──────┬───────┘                                    │     Data     │
       ↓                                            └──────────────┘
┌──────────────┐
│ Transcription│
└──────┬───────┘
       ↓
┌─────────────────────────────┐                     ┌──────────────┐
│ Participant Review of        │                    │              │
│ Transcripts                  │                    │              │
└──────┬───────────────────────┘                    │     Data     │
       ↓                                             │  Processing  │
┌─────────────────────────────┐                     │              │
│ Extraction of all applicable │                    │              │
│ quotes                       │                    └──────────────┘
└──────┬───────────────────────┘
       ↓
┌────────────────────────────────────┐
│ Categorization into AT Constructs   │
│ (Deductive)                         │
└──────┬──────────────────────────────┘
       ↓
┌────────────────────────────────────────────────┐
│ Separation into pre and post-intervention       │
│ quotes within each construct                    │
└──────┬──────────────────────────────┬───────────┘           ┌──────────────┐
       │                              ↓                        │              │
       │           ┌────────────────────────────────────┐     │     Data     │
       │           │ For Goal Only: Categorization of    │     │   Analysis   │
       │           │ quotes into Agency and Engagement   │     │              │
       │           │ Components and Criteria (Deductive) │     │              │
       │           └──────────────┬─────────────────────┘     │              │
       ↓                          ↓                           │              │
┌────────────────────────────────────────────────┐           │              │
│ Inductive Open Coding within each AT construct  │           │              │
│ (pre and post-intervention)                     │           └──────────────┘
└──────┬──────────────────────────────────────────┘
       ↓
┌────────────────────────────────────────────────┐           ┌──────────────┐
│ Written summaries of themes reflected in each   │           │  Synthesis   │
│ AT construct                                    │           │     and      │
└──────┬──────────────────────────────────────────┘           │  Evaluation  │
       ↓                                                       └──────────────┘
┌────────────────────────────────────────────────┐
│ Identification of Shifts in Themes,             │
│ Contradictions                                  │
└────────────────────────────────────────────────┘
```
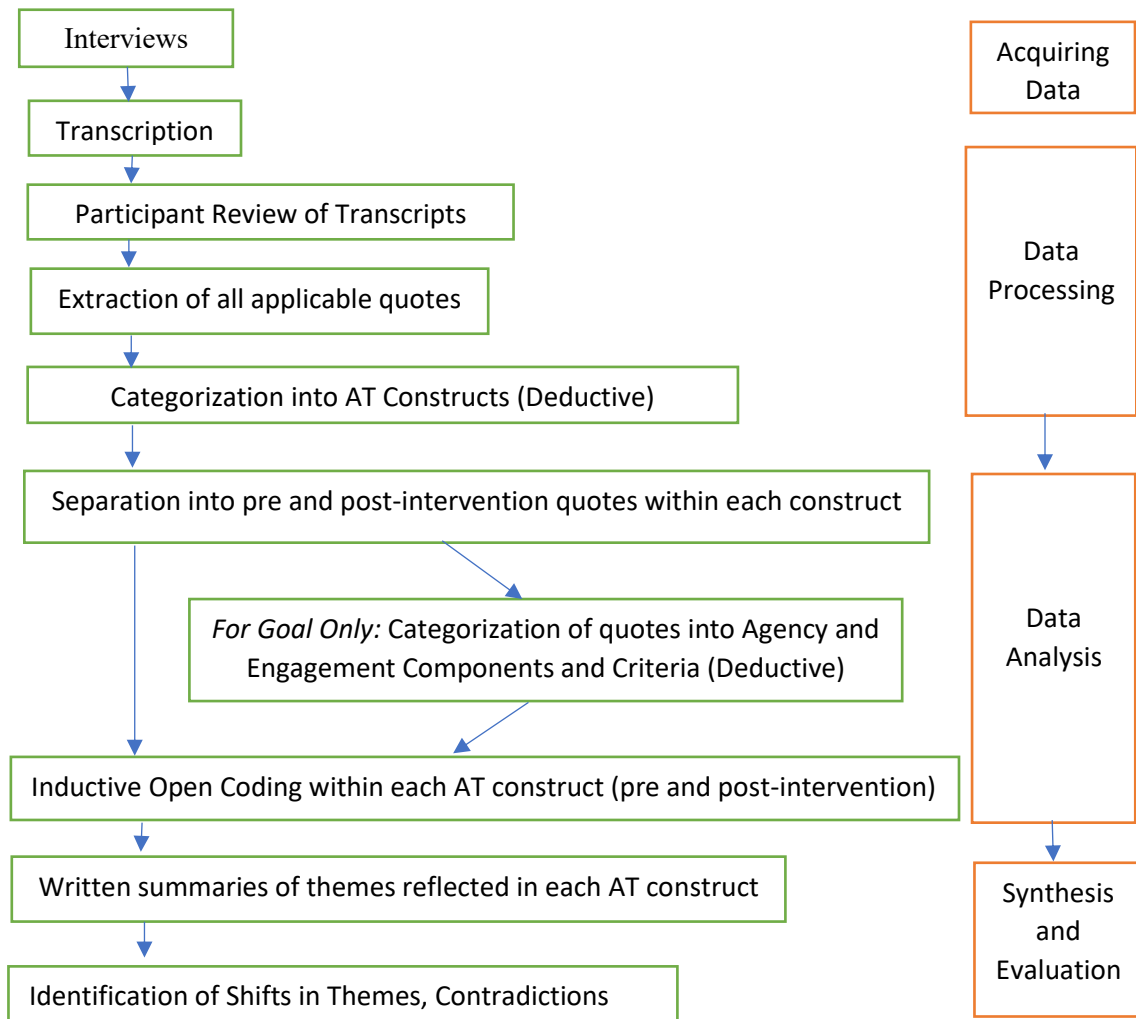
Figure 9: Data Acquisition, Analysis and Synthesis Process for Interview Data

Handling the Data: First Steps. Once transcription was complete, I printed the interview transcripts and cut out any quotes from the transcripts that were in any way expressing ideas about participants' professional development experiences. I was very inclusive as I identified quotes; I chose all statements that concerned the participants' experience with professional development. I ignored comments that were not related to professional development in some way (i.e. were off-topic). I ended up with hundreds of strips of paper containing quotes. On the back of the quote strips, I identified the person with their participant number, and whether it was pre or post-intervention data. These 'strips' were

then "lumped" (Saldãna, 2015, p. 19) into the Activity Theory constructs (Subject, Object, tools, community, rules, hierarchy, Goal (Agency and Engagement)). When a quote expressed an idea that teachers had about themselves, for example, the quote was put into the 'Subject' category. When the quote referred to how a group was formed, how group learning was done or how participants felt about a group situation, the quote was put in the 'community' pile. (See photos in Appendix 10). This classification process was using Activity Theory as a scaffold and it helped me to see both how each construct was evolving or changing during the study (pre vs. post-intervention) and also which constructs were more or less important in influencing the Object — teacher professional development in this case.

I did not use an automated computer program (e.g. NVivo®) to extract these quotes, or to classify them, because as I looked at the data and read the transcripts, I realized that the participants were often expressing similar ideas using very different words and phrases, and this convergence might not be visible to computer algorithm. In the end, I agreed with Saldãna (2015) that "there is something to be said for a large area of desk or table space with multiple pages or strips of paper spread out to see the smaller pieces of the larger puzzle" (p. 22).

These quotes within each Activity Theory construct were then divided into pre and post-intervention groupings (See photo: Appendix 11) and then subjected to thematic analysis. Here the process aimed to "stay close to and remain open to exploring what [the researcher(s)] interpret is happening in the data; construct and keep their codes short, simple, precise and active; and move quickly but carefully through the data" (Thornberg &

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Charmaz, as cited in Flick, 2013, p. 158). As each quote was read and re-read, "meaning [was] central, and the aim [was] to try to understand the content and complexity of those meanings rather than measure their frequency" (Smith, 2015, p. 66).

Throughout the rest of this document, I refer to these groups of short statements or individual words that collectively represent emerging ideas related to the data as themes. I have avoided the use of the term codes (although the process of finding these themes is typically called 'coding' in qualitative research) for these short statements because most of the emerging ideas were not reducible to a single term and these statements were not combined into larger themes later in the process (Creswell, 2009). I continually revisited the themes, comparing how they were similar or different pre- vs. post-intervention.

Handling the Data: Next Steps. As part of the thematic analysis, the themes that emerged and representative quotes were organized by me into tabular forms, and then these tables were used to construct a 'narrative' using both the themes (bolded) and representative quotes to exemplify these as reported in Chapter 5. The six steps involved in this procedure are outlined in more detail below:

The first step was to cut out any quotes pertaining to PD from the transcripts, and arrange them by Activity Theory construct (rules, community, Goal (Agency and Engagement), etc.), and posted on an Activity Theory triangle poster board. (See Appendix 10 for photo).

In the second step, for each construct, the quotes were removed from the board, placed on a table and then sorted them into pre- and post-intervention groups (See Appendix 11 for photo).

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As a third step, for all AT constructs except the Goal (i.e. Subject, Object, tools, community, rules, hierarchy), the quotes were re-read and inductively open-coded (i.e. recurring patterns in the interview data within each grouping were identified and reported as short statements) and these themes were written down in my research notebook (e.g. Post-intervention community). For example, the following quote (along with others that expressed similar ideas) was open coded and the theme assigned was 'prescribed': "Everything's prescribed. It didn't matter what I needed; this is what you are going to do. So that piece was frustrating to me" (3-1).

In the fourth step, quotes were selected from each theme that were representative and placed into a data table organized by AT construct and separated into pre- and post-intervention sections (See Appendix 12 for this data table).

For the fifth step, tables of themes were created for Subject, Object, tools, community, rules, and hierarchy (i.e. all the AT constructs except for the Goal—) and a brief explanatory column was added to each table to clarify and summarize each theme. A subsequent table was created for the post-intervention data, and included both the pre and post-intervention themes for comparison purposes and the changes were described between them in an explanatory column. Tables 7 and 8 are a representative examples, in this case, for the AT construct of Rules.

Table 7: Sample of Themes Table: Pre-intervention Themes for the Rules

Themes Reflecting the Rules (Pre-intervention)	Explanation
Prescribed	Not enough choice or autonomy allowed for PD activities

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Lack of boundaries	Not sure what administrators consider to be acceptable or not
Professional obligation	PD is required of all teachers and this is part of the profession
Not voluntary	Teacher may not be given and choice whether to participate or not in some PD activities
Appropriate/flexible time commitments	Teachers would like more ability to determine the times when they participate in PD activities
Teacher initiated ideas not allowed	When teachers propose ideas these may not be accepted by administrators as valid
Little follow-up	PD often does not allow time for working with new ideas or resources after the initial activity
More needs-based	PD that better meets teachers' needs is desired

Table 8: Sample of Themes Table: Post-intervention Themes for the Rules

Themes Reflecting the Rules		
Pre-intervention	Post-intervention	Change
Prescribed	School/district offered PD still desired	Although PD should not all be prescribed, some activities that are organized by others are still considered valuable by teachers
Lack of boundaries	Would like clear expectations	Clear considerations of what is expected would aid in SDPD decision making for teachers
Professional obligation	Wary of administrative disapproval	Teachers are not sure if SDPD ideas are considered acceptable by administrators
Not voluntary	Appreciation for the opportunity	SDPD allows freedom for teachers to act

		independently and this is appreciated
Appropriate/flexible time commitments	Problems with scheduling	When SDPD is planned there may be difficulty in coordinating teachers' schedules
Teacher initiated ideas not allowed	Past experiences influence willingness to participate in PD	Teachers who have previously been refused PD ideas are less willing to suggest SDPD
Little follow-up	Some may not use time productively	If other teachers do not use their time well, SDPD may cease to be an opportunity for all
Needs-based PD desired	N/A	N/A

In the sixth step, for the Goal in this activity system (Changes in Agency and Engagement), the frameworks (i.e. Figures 2 and 3) developed in Chapter 3 for these parameters were used to organize the latent thematic analysis of these quotes. To do this, the quotes were first separated into Agency and Engagement parameters and then into pre- and post-intervention piles. Representative quotes that illustrated themes in the data were chosen. These quotes were then analysed for which component and criteria they reflected, and then copied into the data table into that component and criteria row (i.e. some quotes fit into more than one row, and were copied twice, but eventually removed as duplicates) (See Appendix 12 for this data table). For example, one quote from the pre-intervention data on the Goal was as follows:

We know what we need, we know what we're missing. We know what the kids struggle with, what the kids don't struggle with, what the kids like and what they don't

like. And so, if we can get together in like-minded groups, it just seems to make way

more sense and [for other schools] we could offer help and work together. (13-1)

This quote was placed into the 'Self-efficacy' component of agency and then sub-

categorized into the 'Can produce desired results' criterion and the theme that was identified

was 'teachers can identify their own needs'.

Once the tables were constructed for all of the Activity Theory constructs, the quotes

from the table were used that were most representative of the themes as exemplars as the

data was reported in narrative style with the themes bolded in the results chapter (Chapter

5).

Once this was complete, I recruited an experienced qualitative educational

researcher 'critical reviewer' who had no previous experience with my research or this

research site, put the quotes into envelopes (one for each Activity Theory category) and

asked her to also thematically analyse some of this data (2 of the 6 constructs' 'envelopes')

into themes as I had. Her results were compared to my initial thematic analysis. As Seale

(1999) recommends, this process was not undertaken to make sure that the themes

'matched' exactly but was a form of "triangulation" that seeks analytic "convergence" —

allowing for differences in interpretations, while also revealing how the analysis process is

"enhanced by the elicitation of multiple perspectives on, or constructions of, a

phenomenon" (Seale, 1999, p. 475). In qualitative research, 'intercoder reliability' is not

normally sought as a confirmatory measure of the data gathering or analysis. Merriam

(2009) argues that rigor should be the criterion used to evaluate the quality of the research

process. This rigor would emerge from the researcher's presence, the nature of the

interaction between researcher and participants, the triangulation of data, the interpretation

of perceptions and "rich, thick descriptions" (pp. 165–166). In this study, however, I was

seeking some sense of how my insider perspective might differ from a knowledgeable

outsider. It seemed prudent in this study, since "[m]ore knowledge of the data is always a

good thing and will certainly be helpful for achieving some sense of validity" (Syed &

Nelson, 2015, p. 10) even as those who will see this study realize that all qualitative data is

relativistic and situated. A comparison of the themes that I identified with those identified

from the same data from this critical reviewer is included in the results. Once I saw that

congruence between the two thematic analyses was high, this increased my confidence in

reporting the results.

Triangulation

As previously mentioned, both naturalistic observation and semi-structured

interviews were used as sources of data in this study and the process of triangulation one of

constant comparison of data from all sources as it was gathered and analysed. While

triangulation in constructivist research has been criticized as being a process more suited to

quantitative research traditions (Guba & Lincoln, 1989), others have considered the practice

to have "an honored history in multiple methodological traditions" (Greene, Kreider &

Mayer in Somekh & Lewin, 2005, p. 274), including types of inquiry using qualitative

methods. In this study, as Mathison (1988) has suggested, triangulation was a "state of

mind" (p. 16). In collecting and processing the data I "self consciously set out to collect and

double-check findings, using multiple sources and modes of evidence [and] the verification

process [was] largely built into the data-gathering process" (Miles & Huberman (1984), in

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Mathison, 1988, p. 16). Since these data sources mostly converged and inconsistencies or contradictions were carefully explicated and explored in the analysis, "little more need be done than to report on one's procedures" according to these veteran social science researchers (Miles & Huberman, in Mathison, 1988, p. 16).

Benefits and Disadvantages of the Research Design in this Study

In naturalistic inquiry, the "researcher has to think carefully about the unintended consequences of being there" (Norris & Walker, 2006, in Somekh & Lewin, 2006, p. 132). Several factors influence this type of research, as the participants are being asked to share their worlds with an 'other', no matter how familiar or similar to them. These factors include: *power* relations, the *value* of the information (or how it could be used to help or hurt others*), trust* (since the researched are vulnerable when sharing difficult information), *meaning* (since this can be misconstrued or influenced by others), which make the methods of *interpretation* and dealing with *uncertainty* crucial for establishing the trustworthiness of the research conclusions or recommendations (Barbour & Schostak, 2006, in Somekh & Lewin, 2006, p. 42).

All of these factors were at play in this research study, and many of the meetings with my supervisor were discussions of these factors. Early in the study, issues of how confidentiality could be maintained within a fairly small school community were often discussed in these meetings, as were issues of how administrators or others were enabling or confining the research parameters. My supervisor gave me advice as to how to stay open to the ways that participants may offer their contributions, and how the study was changing or evolving over the course of the ten months, and how to seek disconfirming data. He also

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continually reminded me to allow my participants to discover what does and does not work, and to not interfere with the process as much as possible (Research journal entries: October 8, 2014, November 12, 2014, March 10, 2015).

Self as Instrument

In this study, as is recommended for naturalistic inquiry by Guba and Lincoln (1989), I used my*self* as the instrument for data collection. In this case, I operated as both a part of this community and one that studies it. At the time of the study I was a teacher in this school district, and thus I was embedded within this community. This can be an advantage for a researcher, as I was familiar with the customs, norms and history of this group. In terms of power relations, I was on the same hierarchical level (or lower) than those I studied, and had a long-term relationship with this school district. I did not directly work with or know most of the participants well, but as a member of this community, and one that the administrators trusted to carry out the study, the participants in turn expressed their trust in me by volunteering to be interviewed, and in those interviews, by expressing to me thoughts and comments that could make them vulnerable to sanction if I did not keep to my promise of confidentiality and anonymity. The biggest strength of having a familiar researcher is that participants knew that I understood the system under study, and because of this I should be aware of the ways in which information gathered could be used to make the system better (and also should have been able to avoid unintentional harm due to ignorance of this systems unwritten rules or norms).

Such familiarity though, may also cause one to be less likely to see some parts of the system. In this study, self-reflexivity is an important part of the process of describing the

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system and how the constructs are working within it. I had to continually revisit my own

constructions to attempt to find biases that were influencing my interpretations of the data.

This was done in several ways. First, the interview data was used verbatim as it was

classified into Activity Theory constructs. Then, the themes that arose were usually

supported by multiple examples of statements by participants to support each one. Since I

had so much data, the themes that emerged were reconfirmed many times. Disconfirming

evidence, in the form of recruitment of participants who did not choose to enter into the

intervention (to self-direct their PD) as interviewees, and also seeking statements by

participants that did not support the supposition that self-directed professional development

might increase teacher agency and/or engagement were sought and included wherever

possible, even if not as well-supported as the confirming evidence.

In this study, I was both the designer and the evaluator of the self-directed

professional development programme. This poses potential issues of bias in the evaluation

phase. Since it was obvious to all — including my participants — that I believed that self-

directed professional development is potentially positive and important, both my

participants and I might have overlooked negative results and interpretations (or my

participants may have even purposely kept these observations from me). This is

unavoidable in a study of this type; even as I took care to seek out dissenting opinions

from my participants, administrators involved in this activity system at several levels, and

my supervisor.

Seeking out those *not* willing to participate in self-directed professional

development projects was an important part of soliciting these dissenting opinions, and I

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was able to obtain data from two teachers who were not willing to self-direct their professional development but who did agree to be interviewed both pre and post-intervention. These two teachers (Participants 11 and 18) participated in the more directed district or school-organized PD activities for this school year, although one of these teachers (18) was eventually recruited by another study participant to be part of her SDPD activity toward the end of the study period. Their data was included with the collective teacher interview data as it did not significantly differ in themes from the teachers who did participate in SDPD, but did help to better illustrate some aspects of teacher hesitance toward SDPD and why this might occur.

That said, it is probable that the study still retains some bias towards positive conclusions of my research questions. It is my assertion that the value in this study is that it highlights what changes can occur in relation to teachers' perceptions of their agency and engagement when they are given some freedom to design and implement their own professional development. Further research, with a school or school district that would be willing to commit to self-directed learning for teachers as its primary focus across schools and staff (especially with principals and teachers that may be less likely to volunteer) would be needed to explore more of the limitations of this type of programme.

Confidentiality and Anonymity

Several measures were used to ensure that the data gathered remained both confidential and anonymous in this study.

Confidentiality. In each stage, attention was paid to keeping the participants' data private. In the recruiting stage, all staff members received the consent forms and collection

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was done so that participants could return the forms without the knowledge of others, including their administrators. Lists of participants were kept under secure password protection, and all communication was done in private if in person or via email, or via bcc email if done as group email. Collection of the consent forms was done in-person, via a designated representative at the site (who was not an administrator), a sealed drop box, or via courier, with the participants choosing how they returned the consent forms. All emails were eventually deleted from the school system server when I left their employment in 2017 (although I kept hard copies of the emails that were directly applicable to this research securely stored at my residence in a safe).

It was important in this study to ensure confidentiality as participants could, and often did, express dissatisfaction with their peers, their administrators, or the school system in general. In order to honestly give this feedback, they had to trust that their information would not be used to sanction them in their professional or personal lives. Some of the participants were aware that others were participating because they chose to reveal this information to each other, but I did not reveal who the participants were to anyone at any time during or after the study. Thus, for the study period, participants did not know who was participating and who chose not to, including the principals and administrators. This protective umbrella was important; it allowed the participants to feel protected from both sanction and judgement, it and ensured that those *not* participating were also not affected by belonging to this category.

Anonymity. All interview participants in this study were assigned a number and this number was used in recording their quotations from the transcripts in order to compare their

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responses pre and post-intervention. In the research journal, my main form of recording for the naturalistic observation data collection, I did use first names of participants when making my notes. This research journal was in my possession at all times during the study, and I locked recordings of interviews and consent forms into a safe at my residence. Data stored on my computer was under password protection (this was not my work computer) and my computer was always with me or in a locked, secure environment. Subsequent thematic analysis done was also done at my private residence, and these interpretations did not have names or identities attached.

Even without names, some participants could be identified. Some participants were the only one of their kind, for example the only teacher that teaches a specialized subject or the only female principal. If there was only one counsellor, or only one subject area teacher at a school, I kept these parts of the responses out of the transcripts, quotations, or any other identifying materials in this study. This was important to retain trust on the part of my participants, and to prevent any repercussions of their participation in my study from affecting their professional lives in this school system and amongst their peers. In the quotes used in analysing the data and in making conclusions, I use arbitrary personal pronouns (he vs. she) in order to further protect anonymity.

Self-selected Sampling. One of the biggest drawbacks of a case study of this type is that participants are self-selecting. Those who chose to participate in a self-directed professional development programme may be those who are already more positive about the concept, and possibly already more agential and engaged in their practice. This included the principals that allowed their staff to participate in this study. Although I did not directly

know any of the elementary teachers before I began the study, I did know their principal, with whom I had a positive relationship prior to beginning the study. This is also true of the principals from the other schools that participated to a lesser extent. Their positive approach to the SDPD programme may also have skewed the results and the sample, as encouragement from a direct supervisor may have had effects upon who participated and who did not. Although I did recruit two participants who were not willing to participate in self-directed professional development, and who were willing to participate in the data collection, even this was somewhat self-selecting of participants who are open to providing their opinion and those that trusted me as a researcher in this process. This reflects a data set that is as complete as possible under the circumstances, but an admittedly incomplete sample of all of the potential study participants. Since the research questions are enquiring into *change* in agency, engagement, it may be that the more agential, engaged teachers may see these parameters shift during this intervention. Even if the sample self-selects then, these changes are important and could be catalytic in a larger context.

Also, there was no middle school participating. Even though results were consistent between elementary and high schools, there is a lack of data from the grade 7 to 9 cohort. And finally, all participants were from the same school district, and as such had some hierarchies, tools, communities and conventions in common, which may not be representative of Alberta or other school systems in general.

Quality Considerations

Evaluation of naturalistic inquiry based on constructivist principles, according to Guba and Lincoln (1989) should be "open to judgments about the "compression and

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rearrangement" processes involved" (p. 228) as the data is gathered and analysed. Such an evaluation is an "emergent" process, that ideally, leads to "empowerment" of participants (Guba & Lincoln, 1989, p. 257). As a result, judgements about the quality of qualitative research of this type have criteria that differ from more objectivist research perspectives. In the next section, I describe five categories that Guba and Lincoln (1989) suggest be considered in judging the quality of naturalistic, constructivist research; credibility, transferability, dependability, confirmability and authenticity, and I apply them to this case.

Credibility

Credibility is the "match between the constructed realities of respondents (or stakeholders) and those realities as represented by the evaluator and attributed to various stakeholders" (Guba & Lincoln, 1989, p. 237). Here, prolonged engagement, persistent observation, and debriefing with my supervisor and committee were used to help me to see emergent themes that were representing the overall responses of participants and salient to the research question.

This study took place over the course of a 10-month school year, and the observation of the case was persistent, as I carried my research journal with me or in close proximity at all times and recorded conversations about PD or PD observations as they occurred. As a naturalistic observer, I assessed and evaluated both my own constructions and those of my participants on a constant basis, with help from my supervisor in debriefing at several points during the study (Research Journal: August 22, September 3, October 8, November 12, 2014; March 12, 2015). Conversations, both formal and informal, were recorded by me in my research journal, and discussions about my own subjectivity were often the topic at

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supervisory committee meetings. I also supplied my participants with the transcripts of their

interviews and asked them to check these for accuracy. As noted previously, the review of

the thematic analysis results by a critical reader also added another layer of peer-debriefing;

this person was both familiar with the context (teacher PD) and removed from it (no

association with this school system or any of the participants), thus her contribution was

valuable and increased my confidence in the results reported here.

Guba and Lincoln (1984, p. 230) describe negative case analysis as the exploration of

data that contradicts or lies outside of most of the conclusions that the researcher makes as

an important aspect of improving credibility in qualitative research. This "active search for

negative instances relating to developing insights" (Schwandt, Lincoln, & Guba, 2007 p. 12)

as the data analysis is done is considered to be an important check on researcher bias.

Although the inclusion of two participants who chose *not* to participate in SDPD, but did

agree to be interviewed, increased the researcher's ability to see data that conflicts with the

premise under study, this were not a true negative cases, as the teachers that chose not to do

SDPD were not actively resistant to the intervention, or opposed to this study *per se*.

Although only two participants were found that were *not* doing SDPD as the intervention

proceeded, their contributions were informative and added needed skepticism about SDPD

both in the interviews and in the observations. Future studies with participants who were

more actively resistant to SDPD would help to improve the credibility of the claims made in

this study.

The methodology allowed for the participants' voices to 'speak' to me. Interview

questions were open-ended and did not directly ask about the answers to the research

questions. This was designed so that participants could "offer up testimony in its own terms" (Guba & Lincoln, 1989, p. 178). I returned to the data over and over again in different forms, first as I transcribed the data and reviewed the transcripts, then as I cut out and grouped the quotes into Activity Theory constructs, then again as I chose those that were the most representative, finding themes and paying attention to differences between pre-and post-intervention responses, then as I added these to the data table (Appendix 12) and finally as I reported the themes in the dissertation. During this process, the answer to my research question emerged both specifically as I encountered key passages in the data, and also more holistically as I gained a sense as to what the data were 'telling' me.

Other aspects that would cause this study to be confirmable is that the study should have relevance in that it deals with the core problems and processes that have emerged from the data, and it should also be modifiable in that it is open to continuous change as the study progressed. Discrepancies between what the participants were seeking in terms of PD and what they were encountering came up again and again in the data, in different places in the activity system and with different terms sometimes used by the participants (for example themes surrounding the concepts of 'isolation/loneliness' and 'more collegial interaction desired' were themes seen several times in the results), and it was these contradictions, in AT parlance, that allowed for teachers to express both their frustrations and their feelings of liberation as the study progressed. Modifiability was exhibited in this case as the participants' relationship to the Object and Goal shifted, as they changed their learning activities during the intervention, and as they reported that they had sometimes changed their classroom practice and/or their attitudes toward their learning.

The data enabled a thick description that "not only clarifies the context but that makes it possible for the reader to vicariously experience it" (Guba & Lincoln, 1989, p. 181). Organizing the data in terms of activity system constructs allowed for a framework for the data, but discovery and verification of the data as it emerged was a constant companion for this researcher. Eventually adding more participants' responses contributed almost no new information to the analysis, and it was "time to stop, a "saturation" point had been reached as the data came to consensus (Guba & Lincoln, 1989, p. 207).

However, all responses and statements, including my own, in this thesis are constructions and represent perceptions of the system under study, As such they may or may not reflect what others in the system perceive or observe. Of special concern is my own multiple roles in this activity system; that of teacher, observer, intervenor (as designer of the study), and evaluator. These multiple roles allowed me to penetrate deeply into this system in some ways — participants seemed to be sharing their experiences honestly with me and apparently trusted me as a part of this system at the lower end of the hierarchy; I could be considered to be non-threatening in this respect. Being a functioning part of this system also allowed me to be familiar with many of the rules and other power structures at work, and the participants' contributions helped to strengthen my construction of this activity system. I was more able to see what was constraining participants as I was familiar with the rules the hierarchies, the tools, etc. in this system and how they were implemented.

But it is also likely that my own biases toward the study played a part in the type of data that I had access to. Participants were aware of my premise that SDPD was a positive and empowering mechanism for teacher learning. Those who disagreed with my premise

were less likely to participate in this research and those who did participate may have been

less likely to express statements that were contrary to my expressed views, especially those

participants that I had prior relationships with. Most importantly, the sample in this case is

self-selecting. Those participants that were ready, willing, and able to do self-directed

professional development in this system are more likely to become a participant in this study

than those who were not, since the aims of this intervention would be more congruent with

their views of teacher learning. Although I sampled participants from as many categories as

possible (from different schools, subject areas, genders, ages, etc.) for interviews, I had only

those who voluntarily agreed to be part of this study to choose from. This large limitation

limits the confirmability of this study. In order to increase the confirmability of the

conclusions of this study, further research using less self-selected samples would be

necessary. Ideally, having an entire school system participate in a SDPD programme,

including participants from schools with principals and teachers that were in opposition to,

or at least less in support of, this type of change would enable more contradictions from the

intervention to become visible in the altered activity system.

One important factor that might have influenced credibility was that, as a colleague,

participants may have been less likely to share negative experiences with me or may have

been more diplomatic in their expressions. Even if they did express more negative responses

to SDPD, I may not have perceived these. The ability to see structural constraints and

contradictions is an important one in evaluating this system, and in interpreting the

responses of my participants, I may be limited by my own construction of how this system

is operating.

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Even considering these caveats, changes in the teachers' perceptions of their agency or engagement in this study are important. Clear differences in these perceptions were evident pre- vs. post-intervention. Kennedy (2016) notes that few studies of teacher PD control for teacher motivation to learn, usually comparing teachers with similar course assignments. This study compares teacher responses before and after the intervention. Their status as volunteers, while a self-selecting sample, does indicate that these teachers may have been more motivated to learn than those choosing not to participate, or more willing to change the way they learn, but since these teachers were compared before and after the SDPD programme, this helped to control for a factor that many PD studies do not, namely teacher motivation to learn.

Transferability

Researchers should endeavour to "provide as complete a data base as humanly possible in order to facilitate transferability judgements on the part of others who may wish to apply the study to their own situations" (Guba & Lincoln, 1989, p. 242). In this study, the data base was as complete as possible — 35 interviews (between approximately 30 and 60 minutes long), and 10 months of naturalistic observation yielded large amounts of data. Successive reviews of the interview transcripts, with careful attention to activity system constructs and thematic analysis, allowed for many emerging viewpoints but also yielded some robust findings. Themes that arose were triangulated from these sources and are as thick and rich as possible in this circumstance.

School systems in Canada and around the world may have professional development systems for teachers similar to the one under study in this case. This includes such

characteristics as: several days or parts of days each year set aside for PD, typical types of

PD sessions being classified as workshops, seminars, conferences or in-service

opportunities, most teachers participating in some form of PD each year (Campbell et al.,

2017; OECD, 2013). As a result, depending upon the similarity of the context, the

transferability may be high. However, where PD systems for teachers differ significantly,

the transferability would be less. In Alberta, other school districts' staff and those in more

general authority (The Alberta Teachers' Association representative for professional

development and the Department Heads of another large school district for example), have

expressed interest in the results of this study, as they see potential transferability of these

findings to other systems. Many school districts in Alberta have similar professional

development policies, and so a larger and more inclusive iteration of this study as an

extension of this small research project would be desirable (Guba & Lincoln, 1989, p. 242).

Internationally, the available data on teacher professional development, as

mentioned in Chapter 2, is scattered and not easily interpreted. In Europe, for example, a

2010 review found that few trends in the types of PD that teachers experienced occurred,

other than most countries addressing professional development as part of a teacher's

profession. PD could be required or optional, needed for advancement in the profession or

not, funded partially, completely or not at all, having requirements for hours that are non-

existent, as little as 15 per year, or as much as 104. A PD model can be mostly embedded or

delivered by outside providers, may be done outside of work hours or within the normal

school year or day (Scheerans, 2010). Evaluating a divergent phenomenon like teacher PD

is thus very difficult, and even more so as few can agree upon what to measure in an

evaluation. However, as mentioned in the literature review, calls for more autonomy in

professional development and more attention to agency and reflection have come from many corners of the globe, even recently from China where models of PD that emphasize effectiveness and accountability have begun to be questioned: "We not only have lost our inner experience; but also are like strangers living in our own home", one author states in describing PD in his system that does not take into account the teacher's "inner life" (Yuting, 2015, p. 157).

Dependability

Dependability indicates that the data stays stable over time. Changes in a qualitative study's design and methodologies are expected as increasingly sophisticated constructions arise. Although some minor alterations were made as this study progressed, most of the initial plans for the methods were carried out. Issues of anonymity arose that had to be dealt with, as did issues of limits and boundaries surrounding what was permissible for teachers. These issues were negotiated with the stakeholders as they arose with the advice of my supervisor guiding my responses. For the most part though, the study proceeded much as I had planned, with little need to significantly modify how it proceeded.

The analysis process itself acts as an indicator of the quality of the construction in this case. This information has been "subject to continuous and multiple challenges from a variety of stakeholders" (Guba & Lincoln, 1989, p. 244), including the participants as they reviewed their transcripts, the administrative actors at the school district involved through one-on-one and group meetings, my supervisor's continual questions and feedback, the inter-reader reliability check done by my research peer, and finally the feedback from my Ph.D. committee. My own biases were "laid on the table along with all the others and are

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made to withstand the same barrage of challenge, criticism, and counterexample as any others" (Guba & Lincoln, 1989, p. 244).

Confirmability

If the "logic used to assemble the interpretations into structurally coherent and corroborating wholes is both explicit and implicit in the narrative" (Guba & Lincoln, 1989, p. 243), then the confirmability of the study is high. Outside reviewers should be able to see enough raw data and the techniques used to compress them to tell if the process is reliable. These criteria were met during the peer review process by consciously asking the reviewers (my supervisor and committee) to look from the data to the interpretation process to confirm that the process was robust, transparent, and logical.

The data collection and analysis process were documented at all stages of this study. Photos of the initial thematic categorization process are included in the appendices of this document. The entire data table of interview themes with supporting quotes within the Activity Theory constructs is also included in this document, as are the communications with the participants, including emails and interview questions. Samples of the observation journal are also included for reference, so as to show the types of data that were recorded here to support the narrative supplied in the observation data (See Appendices).

Authenticity

For the authenticity quality consideration to be met, the research should be fair — in other words, the process should honestly attempt to identify and listen to all points of view: it should be an open negotiation, and it should "pay attention to power imbalances and

intimidations that overtly or tacitly occur within the interactions in the study" (Guba & Lincoln, 1989, pp. 245-250). As described in the previous section, many points of view were considered in this case. Using the Activity Theory construct of hierarchies allowed me to specifically target issues of power and authority, and it became clear (especially in the pre-intervention stage) that there were reports of intimidations and issues of trust at work reported by the participants in this study. These structural contexts in this study were important considerations, especially with respect to the concept of agency. By definition, agency involves challenging and moving beyond structural constraints in activity systems, and this has been shown in this study to be a part of the progress of participants toward the Object and the Goal in this case. Activity Theory allowed me to consider these power structures through the historical reporting of the process of establishing this study and by using the hierarchy construct of the activity system triangle, and these issues are an important contributor to the conclusions in this case.

Also included in authenticity considerations are questions of ontology. Does the research increase the participants' sophistication of their constructions and does it improve their experiencing of the world? This ethical question, in the case of this research, is important. Does becoming increasingly aware mean that having more agency or engagement leads to better learning outcomes for teachers and students over the long run, or does it lead to increased frustration and a feeling of futility as this study comes and goes in these teachers' worlds? In a truly ethical and sensitive research environment these possible frustrations are an important part of the considerations of this research. I had no control over this activity system after my research study was complete. How the actors in this system carried this experience forward could have had consequences for my participants'

professional lives, and I can only hope that any consequences will be ones that are productive for the individuals and the systems they work within.

Finally, catalytic authenticity is the criterion I most hoped to meet. Here "action is stimulated and facilitated by the research process" (Guba & Lincoln, 1989, p. 249). This research project is an observation and an intervention; but, most importantly, it is a possible template for further action in the area of teacher professional development. A true test of the study's success is whether the information gathered is owned by the participants, whether they choose to continue to be involved after the research project is complete, and whether their participation leads to new perspectives in teacher professional development that are used by this and other school districts and by educational systems elsewhere to move forward toward more engaging and agential PD for teachers in the future.

Methodology: Summary

In summary, naturalistic qualitative inquiry was the methodological approach used in this study. The schools that participated in the study were selected from those in the school district where I had obtained ethics approval. The schools were selected via convenience sampling using my pre-existing contacts in this system to find principals who were both supportive of the premise of this study and willing to have their teachers participate. The study proceeded through a pre-intervention data gathering phase, followed by the intervention phase, and then a post-intervention phase of data acquisition. Pre- and post-intervention data gathering methods included semi-structured interviews with a sample of study participants, with naturalistic observation occurring during all phases. Selection of

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sites for observation and participants to interview was purposive; attempting to sample

teachers of many differing demographics.

Interview data was collected, transcribed, then sorted via Activity Theory constructs

and pre- vs. post-intervention. Naturalistic observation field notes were used as data that

framed the reporting of the nested nature of the activities (hierarchical structure of the

activity) as well as to support all reporting of teacher results. Using a table produced from

this data, the frameworks developed for agency and engagement, and the themes that

emerged, I organized these results. In the next chapter (Chapter 5) these results are reported.

Chapter 5: Results

Viewed through an Activity Theory lens, teacher professional development, and participants' perceptions of it, are culturally and historically situated. In this chapter, I report the results of this study chronologically in order to illustrate how the culture and the history of this activity system were important factors that were considered as this interventional study was proposed, planned, implemented and analysed. The hierarchy and history of this school system and the negotiations needed to have this study realized are important to report in order establish the context and to enable better understanding of this activity system in which the teacher results are situated. Thus, this chapter begins with a description of these initial negotiations with administrators and my naturalistic observations as they occurred. This negotiation involved a change in the rules and customs surrounding PD, and as such, was a perturbation of the activity system. Teacher pre-intervention interview data follows, as previously described in Chapter 4, within Activity Theory constructs. Four SDPD projects are then described that were naturalistically observed. This section illustrates a sample of the diversity of SDPD projects that occurred during the intervention and how they were organized and implemented by participants. I then report the post-intervention teacher interview data, also organized by Activity Theory constructs, comparing the pre-intervention themes to post-intervention themes, in order to explicate any changes that had occurred during the study period.

Negotiations and Observations as the Study Began

In this school district at the time of this study, the "Administrative Procedures" made it clear that "Administrators" had authority over teachers, and that "staff will have the

responsibility to make decisions about activities within the scope of their authority" ([Study School District], Administrative Procedure 105, accessed online, 2016). This hierarchy was a typical one for an Alberta school district (Alberta Education, 2019), although some of the details about how this authority is distributed and managed may differ from other Alberta school divisions.

The hierarchy is important in this activity system because the aim of this study was to increase the autonomy of teachers by allowing them to have more control over their PD experiences. This necessitated that typical hierarchical controls over teacher learning were released to some extent, and the negotiation of this change was an important component of the design, which was expected to influence the eventual outcomes of this study. In the next section, I outline, sequentially, how I negotiated the terms of this change which was not a total disruption of the hierarchy; only a small change in the governance of PD, and then only on PD Days[20]. As this was negotiated, I report here my observations during this process. These observations were outlined, more or less sequentially, as I recorded the events in my observation journal and as supported by email and other documentary data.

Negotiating with Central Administration

In 2013 I received part-time educational leave from this school district in order to pursue Ph.D. studies at the University of Alberta. I began to envision a study that would involve professional development in this school district. As these plans proceeded, I shared them informally in PD committee meetings held by administrators in the school district that

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[20] There were a few SDPD activities on days other than PD Days, which were observed and recorded by me in my research journal, but most SDPD occurred on these days.

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I attended that year. The Director of Professional Learning and the Associate Superintendent

for Instruction were in attendance at these meetings, and they expressed interest in this study

and asked if I could outline my plans to the superintendent of this school division. On June

3, 2013 I met with the superintendent, an associate superintendent and another administrator

to discuss how this might occur in broad strokes.

I had a previous relationship with two of these administrators; the superintendent

was my former teacher in high school, and the associate superintendent had worked with me

as a colleague in my school. As I outlined my plans for the study, they asked me questions

about how this would be organized, why this was my focus, and how this might affect the

PD system already in place. I talked about the systemic problems I perceived in PD (lack of

engagement and agency), how self-directed PD might alleviate these problems and why

accountability measures in place (like the 'PD Place' website mentioned as part of the rules

in Appendix 5, and how I perceived that other measures of attendance such as counting

numbers of teachers at keynote presentations) were failing to capture how or what teachers

were learning, or how they were responding to administratively organized PD. I was also

asked about what could happen with teachers who did not participate in SDPD on PD days

and I responded that the present system could and should remain in place for those teachers,

but that it might eventually be scaled down. I suggested that eventually offering less

sessions may encourage more teachers to become interested in self-direction of their PD. At

the conclusion of this meeting, I spoke of 'turning the ship', an analogy that was meant to

suggest that a change in the culture of professional development in this school district would

take time, but that a study like this might act as a catalyst for large-scale change toward

teacher learning that is responsive and respectful of teacher needs.

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On December 3, 2013 I was invited to a meeting with two associate superintendents to further discuss this study idea, as they were anticipating my application for district ethics approval for this study. Here I outlined my plans and they orally expressed their approval of the study and gave me oral permission to contact principals that might be interested in the study. In May and June of 2014, after successful completion of Candidacy in my Ph.D. program (April 22, 2014), I applied for ethics approval from the University of Alberta and then from this school division to do this study and received this approval in late June 2014.

After this meeting, I saw evidence that the superintendent was supportive of this approach. In several newsletter-type emails and bulletins over the next few months he referred to the importance of self-directed professional development and encouraged teachers to do this type of work[21]. After the meeting with the associate superintendents on December 3, 2013 I made a list of 10 schools that I thought might be candidates for this study, as I had previous professional relationships with these principals. Eventually, via convenience sampling (Etikan et al., 2016) I narrowed my focus to three schools as described below.

Crossing the Boundaries from Upper to Lower Administration

At this point I crossed a hierarchical boundary in this system. Once the groundwork with the central administrative staff was laid, I had little direct contact with those at the superintendent/associate superintendent levels for the rest of the study. I met with the Director of Learning Supports, a position between superintendents and principals on the

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[21] One example: Superintendent's Video October 2014 2:15 mentions SDPD
https://www.youtube.com/watch?v=b5WUW6lp_xc

hierarchy, several times during the study; before it began, during the study and at the end of the school year, and she expressed her support for SDPD, and supplied small amounts of funding when requested by teachers for their SDPD projects. Since I worked with her on the PD committee, it was my observation that her interactions with me and the principals and teachers present were important for reinforcing the authority that I had been given to pursue this study. In fact, she had been my mentor in a leadership course that previous year and it was in her role as a principal in a small school in supporting the autonomy of her staff, including in their PD initiatives, that helped to inspire my study. It was clear to me as I negotiated this groundwork for my study, namely finding schools and principals for research sites, that this relationship was another important one that helped me to gain both credibility and good will from potential principals who might agree to releasing some control of their teachers with respect to PD.[22] My next step was to go one step lower on the hierarchy and contact principals.

Principals as gatekeepers

The principal at School A was already familiar with my work, as I had met her (by chance) at a coffee shop the previous summer (2013) and had outlined my work in identifying a study design. At that point she was a former colleague, but that September she also became the principal of the school where I worked. In the spring of 2014, I outlined my study again as I saw her informally at my school and eventually contacted her via email to ask her if she was interested in having her school be part of this study. She was immediately

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[22] This Director of Learning Supports heard (from me) that I was presenting my research proposal to a group of educational professionals, and showed her support by attending this event as well.

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supportive: "Build your own, create your own" (17) was the first line of her email response. She asked for some literature that supported my ideas (which I supplied via email) and she then agreed to meet me during the summer of 2014 for further planning.

The principal of school B was on the school calendar committee that I had joined the previous year (2013). In discussions about future directions for how to allocate PD times and dates, I had made my views about teacher autonomy known, and at our spring 2014 calendar committee meeting I outlined my study plan and asked that any committee members interested in learning more contact me. This principal immediately contacted me in person after this meeting and subsequently via email to also arrange to be part of this study.

The principal at school C was recruited by me via my contacts on the PD committee for this school district (another committee related to the calendar committee but with some different members). This principal had also expressed interest in my study at a previous meeting (April 24, 2014) where I outlined my research proposal. I subsequently contacted him via email and he agreed to meet with me to discuss the project.

On July 2, 2014 I met with the principals from schools A and B. The principal from school C was unavailable for this meeting. At this meeting that took place at a local coffee shop, I went with an outline of what I would discuss (Overview of the Research topic, Logistics, Principals' Roles and SDPD Seminar), and this meeting proceeded as planned through these topics.

The principal of school B (Participant 7) was midway through an organized PD program with the teachers at his school and wondered how he could finish the work with

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this program (Leader N Me[TM]) while still offering his staff time to do SDPD. We came to an agreement about how he would use staff meeting time and other times to finish this non-self-directed PD program, allowing time on PD Days for SDPD. This principal saw that there was congruence between his School Education Plan — an administrative requirement of principals in this division — and SDPD and how new school division calendar models might also support this work. This principal also expressed concern that teachers have time for classroom preparation in August, so the SDPD explanations were recommended to me to be brief and not require extra work from teachers.

The principal of school A asked about how this might be implemented for her staff, wondering if SDPD could be done during Teacher's Convention. I communicated that the answer was "no" and that this was provincially mandated and contractual as previously discussed, and if classified (i.e. non-teaching) staff could be included. My answer here was that they could and would be included if principals desired, but that my study data focused on teachers only. This principal also asked about what would happen to those teachers at her school that did not participate in SDPD, and she expressed that she had to consider how to deal with teachers that were not doing SDPD on school-based PD days. I agreed that this was an important consideration and she said that she would organize some group activities for these teachers, but support SDPD and make these organized activities optional. The principal of school B then also agreed that this would be his approach to those who chose not to do SDPD. The principal of school A talked about her plans to outline this study in her back to school letter for August of that year, and how this might allow teachers to process this change.

Both principals asked me about when they would be able to take care of division business with their teachers, and how this might work around SDPD projects. I replied that having dedicated time for SDPD was important for this to succeed and how time for collaboration was important, and that this business might be better approached at staff meetings. Both principals also spoke about how teachers could and should use their PGPs as tools to guide their SDPD process. We spoke about how they were supportive of allowing teachers from other schools, outside of the three study schools, to participate in these SDPD projects with permission of their principals, and how SDPD should not be time for teachers to do work that was not tied to learning; marking and classroom planning done without collegial interaction were mentioned as examples, although no plans were made to ensure that this was the case during this study. Both principals expressed support for unconventional ideas emerging from this study. The principal of school B spoke of how SDPD might allow teachers to consider their purpose and goals in their practice and how he thought this would be valuable and that this might gain momentum. He gave several examples of situations where he saw teachers following their passions and how he supported this as a principal. At the end of this meeting I gave each principal an academic paper supporting SDPD done at Brock University (Gallagher, Griffin, Parker, Kitchen & Figg, 2011) that I thought reflected some of the goals of this study and we settled on dates for me to do a presentation about how teachers could do SDPD for the next school year to the staff at both schools in late August or early September 2014.

I met with the principal of school C on August 22, 2014 in his school office and offered the same rationale and description of logistics to him as I had to the other two principals. He agreed that he would be supportive of his school participating in the study.

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The discussion then centered on issues of trust of teachers as professionals and how this was important for his staff being able to trust him as a school leader. He also spoke about how his administrative team, meaning the assistant principals and himself, was just forming with some new members, and how he saw this group as one that would support this work. He described how he thought that decision-making was still too top-down in this school district and how he saw more cooperation and communication between schools as essential to good school leadership. He also discussed how he thought that the results of school calendar discussions that we were both part of as members of the calendar committee did not result in what he saw as ideal — more PD time for teachers — and how he perceived that his staff (the teachers) were disappointed by this result. We eventually discussed how principals should have strong ethical principles and that this type of ethical leadership was exemplified by a former mentor principal (to both of us). This meeting also ended in a discussion of logistics and how and when teachers would be recruited and information about SDPD would be given to teachers in late August and early September on operational (non-instructional) and staff meeting days.

Administrative Support Opens Doors for Teacher Autonomy

In order for this study to allow teachers more autonomy in their professional development experiences, it was necessary to navigate and negotiate appropriate permissions, approvals and logistics in the larger activity systems that encompassed and governed teacher PD. This process was both necessary and interesting as it revealed the many layers of administrative rules and customs that affect teacher PD, and only when this change in these rules was clearly approved in the accepted order (university ethics approval,

district ethics approval, superintendent, associate superintendent(s), director of learning, school principals) was this change accepted in this system. It was clear to me that a failure to receive approval at any stage of this process would mean that this study would not move forward as proposed. During these negotiations I was aware of how the relationships of trust that I had developed as a member of this school district were enabling me to work toward this goal. As an observer, I noticed that without any apparent urgent contradictions or disturbances in the activity system (at least to those at these higher levels of the hierarchy), there was little impetus for change to the PD system, and although I was able to work through the bureaucratic hurdles in this case, it was clear that in an established educational system like this one, change in the customs or rules surrounding PD was not easily initiated by those with little authority such as myself.

Although it was not expressed to me that administrators were aware that there were tensions from contradictions between those planning PD and those participating in it before this study began, because of the change in the rules and/or customs surrounding PD that this study was proposing, the administrators that I negotiated with were expressing their concerns about potentials for tensions or contradictions that my study might cause. This included the concerns that teachers who were released from control may not do SDPD (or any PD), that principals may object to me or central administration forcing them to do SDPD with the teachers under their authority in their schools, and that teachers may define what types of activities are acceptable as PD differently from what had been traditionally (albeit implicitly) considered legitimate PD in the past. Each of these potential contradictions will be discussed further in Chapter 6.

As the school year began in 2014, I had all the permissions needed and the initial meeting dates at staff meetings to introduce the study at the schools planned. In late August and early September 2014, I introduced my study to all three schools, as described above and in Chapter 4. By mid-September I had contacted all teachers in my sample of participants for interviews and by the first PD day in mid-October, 2014, I had interviewed all of the teachers in this sample. In the next section, the results of these pre-intervention interviews are described.

Pre -intervention Collective Teacher Results

In the following sections, representative quotes from the teachers are used to exemplify themes (bolded) that emerged from the data within each Activity Theory construct prior to the intervention. These themes are then summarized in tables that follow each section. These themes illustrate how professional development was perceived by the teachers prior to the intervention, with the activity system constructs used as an organizing framework for the data. For the last construct, the Goal, the results are grouped according to the components and the criteria that describe agency and engagement that were explained in Chapter 3.

Themes Reflecting the Subject, Pre-intervention

As previously established in Chapter 3, the Subject in this activity system was the teachers. In the pre-intervention phase of this study, the participating teachers were asked to describe themselves and their practice, and how these related to their experiences with PD in the past.

Teachers described themselves as **committed** to their students and that their participation in PD was driven by this: "Teaching is a huge commitment. One that a person has to put their whole heart into. Where you do need that energy. But you do need the back-up. The back-up is to learn" (14-1). However, teachers also found that the demands of their jobs **limited** the amount of **time** that they could spend engaging in PD. One teacher, when asked to describe barriers to his participation in PD in the past explained how he found it difficult sometimes to "keep all those balls in the air — my days are pretty jam-packed … it's all about time, for me, time is such a commodity, it's worth it's weight in gold, there's never enough of it" (18-1), and some teachers also felt that PD was another added expectation placed upon them and their **limited** time and **energy**: "it's the last thing you want to do … do a workshop or go to or even organize something for yourself" (2-1).

Several teachers described themselves as sometimes **isolated** in their practice, and that PD opportunities for them were chances to work with colleagues: "[PD] gives me a chance to get out of the classroom and interact with others … I find that teaching can be isolating, it can be lonely" (16-1). Teachers also expressed that they valued **PD** that was **immediately applicable** to their classrooms and **practical**. For example, a teacher explained that he regarded the most valuable element of PD for him was: "the practical stuff more than the theoretical stuff for sure" and that he "like[s] actually getting something done" (5-1). Although teachers described **some PD experiences** that, in the past, they found to be **useful and/or rewarding**, these were often experiences like conferences that the teachers chose and attended outside of the scheduled PD days in this district: "I also seek out conferences and … I was really interested and… took some really good learning from that for my practice" (10-1).

When discussing the district's scheduled PD days, teachers expressed that **their own learning needs** were sometimes **not being met.** For example, one teacher suggested: "It was the needs of the students [being considered] … [but] no one was being aware of my needs" (12-1). At this point, before the SDPD intervention began, some teachers expressed their desire to be **trusted** to make decisions with respect to PD:

Good things will happen in the classroom if you treat teachers with respect … give us some time and trust us. [When we are told] "You will do this [for PD] because we said so", you didn't ask me what my opinion was, you just told me what to do. Are we professionals, or aren't we? (18-1)

Teachers also described themselves as **sometimes resistant** to learning in PD sessions or workshops if they did not understand the relevance of the PD for their classrooms: "I thought I could at least do something … that I would like to find out about. [Sometimes] I don't like the idea [being presented in a PD session] because I don't understand it, I don't like it therefore I'm resistant to change" (6-1).

Table 9: Themes Reflecting the Subject (Pre-intervention)

Themes Reflecting the Subject	Explanation
Pre-intervention	
Committed	Teachers expressed care and concern for their practice and their students
Limited Time	Teachers reported that their time to do PD was limited due to other job requirements
Limited energy	Teachers reported that energy to do PD was often limited due to job pressures

Tired, overwhelmed	Workload pressures could lead teachers to express that they could not always meet expectations (their own or of others)
Isolated	Since teachers often worked in their own classrooms or in schools without other subject-area teachers, they often considered themselves as working mostly on their own
Applicable/practical PD valued	When PD gave teachers resources or ideas they could use in their classrooms teachers found this valuable
Some (more immersive) PD experiences rewarding/useful	Conferences or other PD that teachers had chosen been and given time to do were seen as valuable
Learning needs not met	Teachers expressed that they had needs for learning that present PD activities were not meeting
Sometimes resistant	When PD was not seen to be applicable or useful, teachers expressed that they could be resistant to participating

Themes Reflecting the Rules, Pre-intervention

The rules or customs concerning PD in this system before the study began and how these changed during the intervention for the three schools who participated in this study have been outlined in Appendix 5. In the pre-intervention data, many teachers remarked that in the past their PD opportunities were mostly **prescribed**. This teacher's comment about past PD experiences is a representative one: "Everything's prescribed**.** It didn't matter what I needed; this is what you are going to do. So that piece was frustrating to me" (3-1). With regard to PD opportunities that were not officially sanctioned, some teachers reported a **lack of boundaries** or **guidelines**:

> I didn't know I could do something. You know, if you don't know you can go
>
> take, apply for funding and take a session, you would never know … I guess then
>
> it depends upon the dynamic of your school … just knowing what's available and
>
> what are the things that you have to do to get there. (8-1)

Teachers also talked of their **professional obligation** to do PD, and to work within an

individual Professional Growth Plan (PGP) toward their school and district goals in PD, and

how they saw themselves operating within these rules:

> You have to create a professional growth plan and its part of the Teaching Act and all
>
> that stuff, but when it comes really more from inside and you can really see how you
>
> can do something [for PD] and you can see in a quick amount of time how that
>
> benefits [your practice]. (7-1)

Since the rules or customs for what was considered to be legitimate or sanctioned PD

in this district were not explicitly set out for teachers, and since teachers were asked to get

approval for any PD outside of what was being officially offered, one issue that arose was

that teachers found that they were sometimes told that they were **not allowed** to participate

in some activities that the teachers considered to be legitimate PD opportunities. One

teacher described his interaction with an administrator as he requested permission to

organize his own PD activity on a PD day in the past:

> Oh well you know, "You can't." What do you mean I can't? "Well it's district PD
>
> and the district needs us to be at [name of a school] for the day". But what about
>
> the problem? "Oh, you just have to wait until February." That doesn't work. That
>
> doesn't work for anybody. (1-1)

Some teachers remarked that they felt that others were scheduling PD activities for them and that these were **not** considered **voluntary**. For example, one teacher spoke of her experience with this type of PD:

Sometimes when you're being told you have to do something it makes it a lot less enthusiastic than when you get to choose it. Especially when it's something that goes on for a very long time, longer than we all expected. (20-1)

Some teachers spoke about how they perceived that the sporadic and brief nature of many of the PD activities they had participated in had not provided for much **follow-up**: "I'm totally interested but I feel like so much of [PD] never gets fully described and definitely never gets followed up on and that's a shame" (5-1). These two observations seemed to be contradictory, but as part of the wider conversation, it was clear that the teachers were looking for follow-up when they found the PD applicable and valuable, with less time spent on PD that teachers found less useful.

As for future aspirations for PD, teachers were generally asking for **appropriate or flexible time commitments** for PD activities. Some teachers suggested that they would like to see PD be **more needs-based**. For example, this teacher described what an ideal PD scenario would be for him:

[I would be] recognizing a need … and being able to say to my colleagues, other professionals in the field, you know what? I could use some help here and having those [requests] be answered … and then knowing that I would have the skills when it comes back again. (3-1)

Table 10: Themes Reflecting the Rules (Pre-intervention)

Themes Reflecting the Rules (Pre-intervention)	Explanation
Prescribed	Not enough choice or autonomy allowed for PD activities
Lack of boundaries	Not sure what administrators consider to be acceptable or not
Professional obligation	PD is required of all teachers and this is part of the profession
Not voluntary	Teacher may not be given and choice whether to participate or not in some PD activities
Appropriate/flexible time commitments	Teachers would like more ability to determine the times when they participate in PD activities
Teacher initiated ideas not allowed	When teachers propose ideas these may not be accepted by administrators as valid
Little follow-up	PD often does not allow time for working with new ideas or resources after the initial activity
More needs-based	PD that better meets teachers' needs is desired

Themes Reflecting the Community, Pre-intervention

When teachers were asked to describe their ideal professional development situation they had many recommendations for what they would like to see for future PD. The most common theme that arose was that **collaboration was** an **important** aspect of PD:

I need a lot of interaction with other people [in PD situations] and if I don't have that then it's not… I know I won't learn as well. I also like some things that are not just

some talking head going blah, blah, blah. There's some… there's a good opportunity

for discussion and sharing ideas. (7-1)

Teachers also saw their **relationships** and **contacts with their colleagues** as **valuable**

aspects of professional development. For example, in replying to the interview question that

asked this participant what the perfect PD situation for him would look like, this teacher

replied: "So what would be perfect for me would be … making contacts with people who

teach in the same areas" (4-1). As they contemplated doing SDPD, some teachers predicted

that they would have **similar interests** with others. One teacher speculated that when

organizing SDPD for himself that he might be able find colleagues to work with: "There's

probably a pretty good chance that what I choose [to do for SDPD] would reflect what many

other I's in the district would choose and from there we have a chance to form into —

what's the buzzword? — the PLC" (1-1).

Working together in a PD community was seen as a chance to **work through new**

ideas. One teacher explained how this time to process new ideas was important for her in

professional development situations: "I can't just immediately decide that something's

going to be perfect and use it the way it is. I need to work with a different science teacher, a

faculty member, somebody from a different school, whatever, to put things together and

come up with practical activities that take a little longer to develop" (5-1).

Teachers generally expressed that they were looking forward to **sharing** practices and

resources with each other as they contemplated the possibility of SDPD for the coming year.

The following statement by a teacher expressed this and another emerging theme in the data

that collegial sharing in PD was also important for a teachers' **identity as a professional**:

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"To share what you know [in a PD situation], that's what makes it worthwhile. I guess that's a profession. Without that, what do you have? Nothing" (12-1).

Some teachers also expressed that PD should have **less barriers** for diverse opportunities for activities. One teacher described how this might differ from many of her previous PD experiences: "So I just think in an ideal world you just have opportunities, less barriers … to things that are available. Yeah, I guess, just not being restricted to having to go to an hour and a half session in a small stuffy room" (8-1).

Working with others was also seen as important for teachers for dispelling fear of **sanction/judgement** when trying something new. One teacher expressed this as he described what an ideal PD situation would look like for him:

> [PD is valuable] anytime that I can sit with colleagues an discuss what's going on in my classroom, in their classroom, and I know that what's said stays in the room … almost like a lawyer-client, a doctor-patient [relationship] … but the people sitting down, talking, the door is closed, what is said stays in there, without fear of reprisal, without fear of judgement, where someone can ask a question, people answer it, and professionals share thoughts amongst themselves. (11-1)

Table 11: Themes Reflecting the Community (Pre-intervention)

Themes Reflecting the Community (Pre-intervention)	Explanation
Collaboration is important	Working with other teachers was viewed as valuable for learning
Similar interests with others	Working with other teachers to achieve similar goals was seen as worthwhile

Making/keeping contacts/relationships valuable	Teachers can help each other when in communication and having similar needs and interests
Working through new ideas important	New ideas require practice and a safe debriefing environment
Sharing as part of identity as a professional	Helping others to become better teachers is seen as part of the profession
Less barriers to diverse experiences	SDPD allows for teachers to imagine and participate in experiences other than those planned by others
Less fear of sanction/judgement working in groups	Support from other group members allows teachers to feel more confident and willing to take risks

Themes Reflecting the Tools, Pre-intervention

Tools in this activity system have been previously described in Chapter 3 to be both physical and organizational. The physical tools in this system did not change noticeably over the course of the study and were not discussed by the teachers to any significant degree, but teachers did describe the use of organizational tools, such as plans or resources as part of what they considered to be PD.

The most common tool referred to concerning PD practice in the data was the PGP (Professional Growth Plan) that all teachers in this district were required to complete early in the school year. As the study began, a few teachers shared their PGPs with me as they wrote their plans for SDPD in the fall as they expressed to me that these documents supported their SDPD plans. In the interviews however, some participants reported that they saw some **limitations of the PGP** as it was presently being used as a planning tool for

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SDPD. One teacher summed up a few concerns: "Nobody seems to oversee these … and then at the same time, as much as I can set these goals, it always seems to come down to me to pursue them both in terms of the time and the money associated with them" (1-1).

Time and **money**, if considered as necessary tools needed for PD, were cited several times as **barriers** to teachers in pursuing PD as the study began, with more expressions of time as a limiting factor than money: "It's time, time. And if you tell me that I'm valued as a professional, then show me that. Give me the time to do what I need to do (1-1). Money was seen as a barrier to PD when teachers requested funds to do PD that fell outside of the scheduled PD days, or required funds to operate: "It all comes down to money and I firmly believe that the vast majority of administrators would not have a problem with me being away for a few days to go to a professional development thing. It's just that there's no money to do that" (13-1), although some participants found that a supportive principal was able to access funds for them to pursue their PD goals:

All of my administrators have found the money for me to do [PD] so it's really just a matter of me getting my act together. [I need to find] a little bit of time to sort out what I need to do and admin have been really supportive. (16-1)

PD in past experiences for teachers was seen as an **opportunity** for teachers to **create, modify, or learn about resources** and materials that could aid their classroom practice. Two teachers expressed variations of these themes: one indicating that they appreciated when others provided useful resources and the other speaking about modifying or creating her own. When asked to describe, prior to the intervention, what her perfect PD situation would look like, one teacher described this as: "Where you … go and work on

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what you need to or research the things you need to or having time to create materials …

that would be my perfect day" (9-1). But having a trusted expert provide materials that

could be modified was also seen as useful: "She [a consultant] was in the trenches with us

and she was bringing many of the items that she was using and you could use them or

modify them or use that as a jumping block and that was probably some of the most

effective [PD]" (6-1). Even when the resources provided to teachers were seen as useful, the

time to work with them was also seen as important and often not available: "When the class

is over, that's it, you're done. You take what you got and you either get it or you don't and

you have to have more time to do that" (14-1).

Table 12: Themes Reflecting Tools (Pre-intervention)

Themes Reflecting Tools (Pre-intervention)	Explanation
PGP limitations (little oversight)	PGPs are not consistently used, reviewed or followed up with teachers
Time barrier	PD must occur at pre-set times and this time is not sufficient
Money barrier	Funds to attend conferences or other PD that is not directed by the school district are often hard to access
Opportunity to create, modify and learn about resources	Accessing resources provided by others are often seen as valuable PD activities, if teachers have time to make their own, practice using them, or modify pre-existing ones.

Themes Reflecting the Hierarchy, Pre-intervention

As stated previously in Chapter 3, the hierarchy was well-defined in this school

system, with central administrators at the top of the hierarchy, principals and assistant

principals under their authority, and teachers under the principals' authority. Students would

occupy the lowest rank in terms of the division of labour, being subject to the authority of teachers and all other administrative levels. In the interviews, teachers often spoke about the functioning of this hierarchy as influencing PD in this system.

The role of administrators, including **principals and other central administrators**, was often spoken of as **limiting or enabling** by the participants as they spoke about past PD experiences. In the pre-intervention phase of this study, teachers would sometimes speak of administrators as having an effect on how they experienced PD:

> Our district administrators really being on the fence about what [PD] looks like, how do we get to the next spot, do we have a choice or don't we? For me I think it affects administrators but I think it also affects teachers, I think it affects cultures of schools and ultimately affects what we do with kids. (10-1)

Some teachers spoke about how administrators, especially their principal, had enabled them to do the PD they found valuable:

> I feel that right now where I am that I have a lot of control [over my PD], I feel that my principal, [name], really respects our judgement as professionals. [Name] comes in and [name] doesn't interfere [when we are doing PD]. [Name] always has positive things to say about what we're doing. (20-1)

One teacher compared two school scenarios as she began inquiring about SDPD, as she transferred from one school to another — the second school was part of this study, but the first one was not:

[When I was at] my other school, I said, here's the professional development I'd like

to do, I sent an email, four weeks, [the principal] completely ignored it, and then he

said, "No you can't do this, I want you to do this training". Well, it's training I've

already done three or four times. … And I was like, "I don't want to do that", and he

was like, "That's part of our school education goals and you're going to be

participating in this. (3-1)

Both teachers and principals expressed that they understood that principals acted as

gatekeepers to PD. One principal stated this directly:

[School Leaders are] very important, they can either encourage or discourage, they

can put limits on what they let people pursue or they can say here, have at it. And

sometimes there's a direction that we have to say, like there's certain things that are

non-negotiable for us, like when the government has four goals. Nothing we're going

to do here is going to change that. (7-1)

This statement was interesting, as both principals and teachers expressed that they

understood that administrators were also attempting to **fulfil certain requirements** as they

organized PD for teachers. This same principal seemed to understand this, and understand

how this might be frustrating for both administrators and teachers:

From the provincial goals to the district goals to the school goals and everyone is

saying, this is what you're going to do, this what you're going to do, and in turn that's

what the teachers have to do for their PD. (7-1)

Teachers also reported that they understood that principals made decisions about what types of PD were acceptable:

> For PD, [principal's name] is really good a coming to the staff meeting and [saying] "What do you want to work on?" But a lot of principals don't do that so… overall for those PD days if you're being told, "Oh you need to do this or you need to do that", you need to be here or see that, then no you don't have that control. (2-1)

Some teachers indicated that they were frustrated by an authoritative approach to PD. One teacher was speaking about her PD experiences over the past several years when she expressed how this type of principal control was also influencing many aspects of how her school was functioning: "We pass through things all too quickly, and when there's a push, there's a push back. And that's from kids and parents and child and students and staff and administration" (12-1).

Other teachers commented about how **leadership influenced school cultures** and that this affected how PD was implemented. For example, when asked about barriers that he had experienced to pursuing PD in past years, a teacher commented: "A lot of challenges came from, in my opinion, having administration that wasn't as stable as I thought it was. So, it made it challenging for a lot of people … because we were never really sure about directions, and about what the end goal was" (10-1).

Both administrators and teachers spoke of how **trust** was **important** in the relationship between teachers and administrators when it came to PD. One principal described this succinctly:

I suppose there's always an element of trust. It has to go both ways, it has to be trust

that the staff will do what they say they're going to do but also trust that if a staff

member says I want to do this self-directed professional learning that they won't

present it to their administrator say, and then get shot down. (7-1)

Teachers also spoke of the trust between the administrators and the teachers that

would be needed to do SDPD. One teacher spoke of he saw this as important as he

attempted to do SDPD at the start of this study:

I guess the biggest thing is that everyone is on the same page and the choice is what I

could say [for my PD] and that admin and the [school] board is trusting the teachers

that they're going to use that time for their own professional development. (2-1)

Table 13: Themes Reflecting the Hierarchy (Pre-intervention)

Themes Reflecting the Hierarchy (Pre-intervention)	Explanation
Principals and Administrators can be limiting or enabling	Principal support or disapproval is important for teachers when considering PD activities
Administrators are gatekeepers for PD	Administrators can support or prevent/discourage PD activities from occurring
Understood that PD must fulfill certain requirements	Teachers understand that administrators need to have teachers learn some skills or resources
Leadership influences school cultures (which affects PD)	When school administrators support teachers generally (or do not), this affects how teachers view their school and PD
Trust is important for both teachers and administrators	Trust works both ways, when teachers and administrators trust each other,

teachers are more willing to engage in SDPD or other PD activities

Themes Reflecting the Object — Professional Development, Pre-intervention

In Activity Theory and in this study, the Object of work is a socially and culturally defined entity. "Objects are concerns; they are generators and foci of attention, motivation, effort, and meaning." (Engeström, in Sannino et al., 2009, p. 304). In this study, the Object was the professional development activity of the participants in this study (the Subject). In Appendix 5 I have described how PD was realized in the pre-intervention stage in this school district and in Appendix 2 I have described some of my own experiences with PD in the study context pre-intervention.

In the pre-intervention stage of this study, teachers were clear in their descriptions of the factors that could be changed or altered to improve PD. The themes that arose included **choice, freedom,** and **relevance** that honored their **ability to make professional judgements** about their learning. Teachers, before they tried it, felt that these aspects of SDPD made it attractive to them as an option, but also expressed that they understood that **all PD would not be self-directed** as district, provincial and school goals had to also be addressed.

Some teachers saw PD as a vehicle with which the school system sometimes attempted to implement change, but not necessarily change that the teachers considered to be well-planned or desirable in their practice. This participant expressed how she saw this as problematic, and how it **impinged upon her professional judgement**:

"It just frustrates you that you can speak as much as you want to speak [about what

PD teachers would like] but no one's listening. … Change for change's sake doesn't

help anybody and we always don't have to change things. And progression doesn't

always mean change. There's other ways to progress aside from throwing something

out and starting something new. That's not necessarily what progression is. (13-1)

Teachers wanted more **choice** in their professional learning, and they acknowledged

that centrally organized sessions could not deliver all that they needed:

The way that professional development is done right now is not working … in order to

make it work that teachers have to be the ones that come up with what they need to do,

what they want to do, and we will be doing and that I don't think that professional

development can be *en masse*, everybody in the school working on the same thing. I

think it needs to be specialized, unless you're dealing with a school initiative; I

understand that. (13-1)

Another theme that arose in the pre-intervention stage was that administrators may

have to do some work with teachers that involves school or district initiatives, so **all PD**

may not be self-directed, and that was understood by teachers. Several participants also

stated that they thought that administrators had some responsibility to provide an organizing

framework for PD, even if teachers had more freedom to work on their own projects:

I like knowing there might be organized events and organized speakers but I would

like to have the freedom to decide if that particular speaker is going to be useful to

what I am trying to accomplish and be able to pursue other alternatives if not. (15-1)

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One vice-principal, when asked to describe the ideal professional development situation pre-intervention answered:

You have choice. Which in adult education, if the adults don't have choice, they're not going to buy in. I think the idea of people forming their own PLC's [Professional Learning Communities] is very, very strong, because, again, it comes back to interest … the more interested you are, the more engaged you are. (10-1)

Teachers expressed that they wanted to have **freedom** to choose ideas or topics that were meaningful for them, regardless of administrative goals, etc.: "I don't want to go to something that is… being imposed on me but that I have the opportunity to choose my learning and how I'm going to do it" (17-1). One teacher was looking forward to this ability to do PD that was not offered as a district choice:

I'm so excited about self-directed because I feel like, especially for the last two to three years, I've been basically doing all of my PD on my own time anyways and like I said it's not that there's not sessions that I want to go to, but like when you have to just choose a session to choose a session, I don't see how that is spending your time wisely. (20-1)

Several teachers in the pre-intervention interviews also mentioned that unstructured 'play' was something that they considered as productive as part of their learning experiences, for example:

[If] there's a lounge where I can talk to the other three [subject area] teachers who are around about a certain thing or trying to improve it or whatever … more open time in

a group environment to sort of play through [ideas] a little bit and see how they work.

(5-1)

One participant spoke of how he would like to have more of sense that he could control of many aspects of his practice, including PD: "I'm a bit of a control freak and I want to have control over what I'm doing and I feel right now that I don't." (10-1)

The most frequently occurring theme in the pre-intervention interviews was **relevance**. Teachers did not want to waste their PD time on sessions that were not, in their view, useful, practical and/or in the person's grade or subject level. "How is this going to help me help my kids?" (7-1) was a common sentiment. The same participant that was critical of PD that she saw as coercive was clear when she advocated for local teacher control over PD:

This [SDPD] is what we need to make our lives better. Not somebody in Central Office, not someone in the United States who'd written some non-fiction piece of something somewhere else. Not Norway … we should decide what we need to know, what we don't have, and so networking is important I think … Something that is moving them ahead in their [the teachers'] practice, that is developing their skill set, that is going to make an impact on the work that they do with kids. (13-1)

Table 14: Themes Reflecting the Object (PD) (Pre-intervention)

Themes Reflecting the Object (Pre-intervention)	Explanation
Professional judgement important	Teachers should be able to decide what changes they need and learn about these (and not what others think they need to learn)

Need more choices initiated by teachers	Teachers should be the ones to indicate their learning needs and choose how to meet them
Want more freedom	Mandatory or imposed PD is not appreciated by teachers
Needs to be relevant	To be useful or meaningful, PD must be a topic or activity of concern to teachers in their context
Not all PD should be SDPD	Teachers supported some PD that was organized and suggested by others

Themes Reflecting the Goal: Agency, Pre-intervention Themes

In the following paragraphs, for each component of agency (e.g. self-efficacy, self-reflection, reflexivity, intentionality), the criteria that describe these components are used as an organizing framework to discuss how the data reflected the participants' agency in the pre-intervention stage of this study. Representative quotes that support the participants' expressions of each criteria are used as exemplars.

Self-efficacy. The criterion that participants can produce desired results, a part of the agency component of self-efficacy, was evident from some participants as the study began. One teacher explained that **teachers could identify their own needs** and that they **could work together to meet them:**

> We know what we need, we know what we're missing. We know what the kids struggle with, what the kids don't struggle with, what the kids like and what they don't like. And so, if we can get together in like-minded groups, it just seems to make way more sense and [for other schools] we could offer help and work together. (13-1)

As the study began, some teachers expressed that they looked forward to the opportunity to meet their own needs, even if the area they were planning to work with was not an area they were confident about:

I think I'm very excited about the opportunity to make the choices myself. … [this year] I'm pinpointing a fear … addressing it, seeing how other schools are dealing with this, because I think — well I know I am — I'm a control freak. I want to know where the students are. I want to understand this process. (6-1)

Some teachers expressed frustration when they spoke about past PD events where they **had little say in what was planned** for them, especially if they felt that the PD activity that they had to attend was **not in alignment with their needs or level of proficiency**:

I remember thinking that this was not even someone who works for the [school] district, who's been brought in as a speaker, he's not even a teacher and he's talking about [the topic this teacher did his Master's degree about], so I thought, you know, I've got a thing or two to say about that. (1-1)

And teachers who did try to do some self-directed PD in the past expressed frustration when they **had to justify their requests** for PD that they thought fit their needs:

You had to ask [to have your own PD idea approved], it had to be evaluated, it was … if it didn't fit somebody else's agenda then I don't feel it was given any credibility. And that's too bad, because, while they have an agenda, I also have an agenda, and being the best person to know what the needs of my students are and what my

professional needs are … it's just lip service. Following somebody else's agenda.

Being the good soldier. (12-1)

These teachers expressed considerable self-efficacy as the study began, and although

they reported that they felt capable and that they could diagnose their own learning needs,

their expressions of frustration in attempting to overcome barriers like administrative

permissions, or administrators' 'agendas' were common. These are statements that indicate

that teachers' self-efficacy was being stifled by what they considered to be overbearing PD

restrictions.

The self-efficacy criterion that teachers can forestall detrimental consequences was

represented in the data only by teachers speaking about **fear of reprimand or failure** in the

pre-intervention data. One teacher expressed that he seldom even asked questions at PD

sessions prior to this study because:

You don't want to ask a question and be fearful that — Oh, that was a strange

question, you mean that he's not doing that? And then worrying that someone is going

to come in [and say], "Well, based on the question you asked you're probably not

doing what the assessment policy says", when in fact I merely asked a question about

it. (11-1)

Another teacher, who participated in the study but did not immediately participate in

SDPD (although he joined another group later in the study) expressed the reasons why he

hesitated to do SDPD:

[I have] fear of being reprimanded for either failure or not doing it the way others believe it should be done. So, the barriers have been my fear of adding stress by being called in by administration and having to explain my teaching practices. (11-1)

In these last two situations, teacher self-efficacy was less evident, as they expressed that past negative experiences were not supporting them having the confidence to try new things or take risks in PD situations.

Self-reflection. For the agency component of self-reflection, the criterion that teachers were evaluating past outcomes was well-represented in the data. Teachers often expressed that the session or activity that they attended was **not relevant** for them. One teacher summed up what several others indicated they experienced at past PD sessions:

[The PD session] wasn't interactive, it wasn't anything that I didn't already know, it didn't pertain to working with kids in a classroom … Please don't read it to us because I can get a book and read it. Most of us have and do. … In many ways [it] was a waste of time. (3-1)

Or, in some cases, teachers spoke of giving input or **feedback** to leaders at a PD session and that it was **ignored**:

I found some [PD sessions in the past] were not useful in the sense that we might have a good discussion but in the end it amounted to [being told] "Here's how you're going to do it", so if you're going to have a collaborative discussion then not listen to what comes out of that it ends up being a waste of time … the concerns that were brought up were not really addressed I think. (15-1)

One teacher, in the recent past, had organized and led a PD session for this school district on a PD day. He was self-reflective as he recalled the experience:

It was good … because it prompted me to reflect on my own practice and when I'm thinking about what I do and I'm trying to decode it and how I can explain it to other people… it gave me a **deeper understanding** of my own work. (1-1)

But he also commented that this process had been frustrating to him: "I put about 30 hours in, preparing for this and it was a packed house that I presented to, but then again that 30 hours of preparation came from my time" (1-1). After this experience, this teacher began to try to organize collegial department PD working sessions on PD days as this school year began. He reported that this request had initially been refused by his principal, but that an assistant principal had suggested that if he (and all of his colleagues that participated in the alternate PD activity) join this study (by filling out consent forms and returning them to me) that this would be a way for him to engage in this SDPD. He was also self-reflective about this: "I just look at the barriers [to doing SDPD] that were put directly in my path" (1-1).

The final criterion for self reflection, that the teachers might consider how power, identity, subjection and freedom interact emerged often from the data, as teachers expressed considerable insight into how power structures were influencing PD in this system. Here teachers discussed how they felt they **needed more control over their PD**, as they spoke of how they saw their position in this system. One teacher remarked:

I think the biggest thing is, as an educator, as a teacher, you need to be able to have a say in what you need to do as professional development. So how am I going to become a better person or a teacher and a person in my job by doing this? Right? So,

having a say in what you can do and what you can make your classroom better, and basically make your whole school better because you have a say in it. So not being basically forced or not being put into a hole, right? Because if I'm a square, I'm not going to fit into a circle hole, a round hole. So, it's just not going to work. (8-1)

One teacher described why control was important for him to be trusted to learn what works in his context for PD:

At the end of the day it is my job, I've got to sit across from those parents at parent-teacher interviews and justify what I'm doing. … Joe Book Tour Consultant is long gone when parent teacher interviews roll around. So, if I go off on some crazy tangent inspired by him that I can't justify and explain to parents, it makes me look like a buffoon. … Do you not trust me? And, for the most part, I think people do, but every once in a while, we get questioned on that, we get painted into a corner, we've got to defend ourselves, and it makes me grumpy. (18-1)

One teacher described how the lack of relevance of PD offerings over the years had eventually caused him to **question other decisions that had been made by leaders**:

[Looking at PD offerings] really gave me insight into the spending priorities of my employer and that made me question the wisdom of a lot of decisions because if this was viewed as wise, what else was being pushed that I'm not aware of. (1- 1)

Reflexivity. In terms of the emergent view of the social environment criterion of the reflexivity component of agency, teachers spoke about how this affected their PD situation. For example, another teacher who tried to start a collegial group also felt **unsupported**, but

for this teacher, she felt that the barrier was that those that could give permission discounted her ability to lead this type of group:

> If I have to go outside [of the school] and talk to consultants in [this school district] or other places, I'll be shut down … I think I'm smart enough to ask the questions and to do the stuff. I'm going to make mistakes, but we all do. … so, I wanted to start the professional community… but to do that I had to talk to the person in charge and ask and she said no. … [I feel like I was being told] that, you don't know enough. (3-1)

Other teachers commented that although they did not object to having PD opportunities that were organized by others, even collegial sessions, but they were **concerned if** any PD became **non-voluntary**: "I don't mind if somebody else wants to do something, but when its starts to affect me then I want to have some sort of say, so I don't think that's unreasonable" (5-1).

Other teachers commented that having **centrally organized PD sessions as choices** should still be available, even if teacher-organized SDPD became more common in the school district:

> I do believe that, much like teaching, there is a time for direct instruction and there is a time for self-directed learning…. So I don't have a one answer, because that answer will change month to month, but if it's ever going to be a sit there and listen, I don't want it to be a you could have handed me a piece of paper, read this, because then I've wasted my time. Because I can read on my own time. (11-1)

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Intentionality. In terms of intentionality, another component of agency, in the pre-intervention stage, several teachers reported that to meet their ongoing needs that they had put some plans for collective action into place in past years. For example, when asked how or if she was able to pursue her PD goals in the past, this teacher responded that she was only able to do this by **getting the required permissions**:

> [By] Offering to do it myself. I think that's the only thing that people are willing to do sometimes … I mean I don't mind asking permission for something… [but] I feel like I shouldn't have to ask each individual person [that participates to get permission] and I feel like sometimes I have had to. (5-1)

The final criterion of intentionality, that teachers felt the ability and need to act, was represented by teachers expressing that they had overcome some barriers to finding PD that fit their needs. One teacher described how she felt that she was **pushing boundaries** as she attempted to find the PD that she needed:

> It's kind of scary because I'm a very, I'm a little outspoken so sometimes people don't like that so… I feel like there would be a lot of headbutting and… I feel that I am very intelligent and quite capable of doing this and that if I feel that something is not working for my students, I will do my best to try to find something else, like suggestions are a lot different than being told that you can't do something. (20-1)

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Table 15: Themes Reflecting Agency (Pre-intervention)

Themes Reflecting Agency (Pre-intervention)

Components	Criteria	Themes	Explanation
Self-Efficacy	Can produce desired results	Teachers can identify own needs	Teachers can identify their own needs and work together to meet these
		Teachers had little say in what was planned	Without ability to make PD decisions, teachers are thwarted in learning what they consider to be important
		PD not in alignment with teacher needs or level of proficiency	PD offered was often not appropriate for teachers
		Teachers had to justify their requests	Teachers had to refer to administrative goals in order to receive permission to do SDPD in the past
	Can forestall detrimental consequences	Teachers had fear of reprimand or failure	Teachers saw proposing their own PD ideas as risky — subject to judgement by administrators
Self-reflection	Evaluates past outcomes	PD not relevant	PD choices offered often did not reflect teachers' needs
		Feedback from teachers ignored	When teachers suggested change these suggestions not acted upon
		When teacher organized, they had deeper understanding of their work	When PD was organized by teachers it was seen as a learning experience
	Consider how power, identity, subjection and freedom interact	Teachers need more control over PD	Teachers could see that PD control could be their responsibility and were asking for this
			When teachers confronted barriers to their ability to control their PD they

		PD control decisions led to questioning of other decisions by leaders	looked at other aspects of their practice that was also being controlled by others
Reflexivity	Adapts to needs of members of group	No data	Teachers did not express that group adaptation occurred in the pre-intervention data
	Emergent view of the social environment	Teacher initiative in PD unsupported	Administrative support for teachers taking control of PD lacking
		Teachers concerned if PD organized by others is not voluntary	Mandatory types of PD initiatives were often viewed with skepticism or resistance
Intentionality	Plans to put collective action into place	Teachers needed to get required permissions	Teachers saw permission requirements for PD as restricting
	Ability and need to act	Teachers sometimes pushing boundaries	Teachers advocating for their learning needs sometimes met with resistance from administrators

Summary of Pre-intervention Agency Themes. Teachers in the pre-intervention phase of this study reported indications of self-efficacy in that they felt capable of knowing and meeting their needs, but they also reported frustration with barriers that they felt were preventing them from doing so, such as having to request SDPD and have it approved by others, and being fearful of reprimand or judgement if the PD was not in alignment with the interests of those in authority. Teachers reported that they found that PD in the past was often non-voluntary or not relevant for them. They were aware of the procedures and

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permissions needed to do their own PD, but found that pushing the boundaries for what was considered acceptable by those in authority for PD was not encouraged.

Themes Reflecting the Goal: Engagement, Pre-intervention Themes

In the following paragraphs, for each component of engagement (e.g. vigour, dedication, absorption), the criteria that describe these components are used as an organizing framework to discuss how the data reflected the participants' engagement in the pre-intervention stage of this study. Representative quotes that support the participants' expressions of each criteria are used as exemplars.

Vigour. Teachers' expressions of vigour included some positive expressions of the criteria, but many expressions were negative in tone, meaning that their statements supported that their engagement levels were low.

For example, when speaking about effort in terms of their past experience with PD. Several teachers also reported **low effort** being needed in the pre-intervention phase as they described their PD experiences in the past: "I sit in a chair. Someone speaks to me for a few hours…. For the most part it was a download of information" (11- 1), and, "[PD was] decided by the district or the school and I would have to go to it and sit there and listen and try my best to pay attention to it" (20 -1).

In terms of high energy, the most positive expressions in the interviews referred to teachers' interactions with students, but in terms of their PD experiences, the most positive expression of energy pre-intervention from a teacher was that it was **a time to rest**. One teacher described how they thought others often viewed PD experiences as: " a day of rest,

like they don't have to plan for it, they don't have to do anything that they have to prepare for, but I would often feel frustrated because there was so much work to do" (3-1).

Energetic PD experiences in the pre-intervention phase of this study were expressed as **aspirations** from teachers due to the ability of the teachers **to connect**:

I think it's really important that we need to pick and choose what we need as professionals and to be connected to others with the same ideas and passions because that allows us to stay current in our field, excited about our jobs, and energized because we get and feed off of that from each other. (3-1)

With respect to PD, little evidence of teachers' expressions of resilience or persistence was noted in the data in the pre-intervention phase of this study.

Teachers did speak about their motivation for engaging in PD. For one teacher, it was a time when demands on him are lessened, and he also reported that the **demands of his job** often left him **less motivated** to attend to PD events outside those that were required:

Even though [PD organizers in this school district] do offer workshops, etc. it's always after you've done the full schedule and unless it's right on topic that you're doing it's hard to be motivated to actually go to them. So, and sometimes the best PD is rest … we all have home lives you know there's that going on outside which you have to stay on top of as much as you can. (16-1)

Dedication. The second component of engagement considered has a criterion of involvement in work. This was represented in the pre-intervention data mostly as expressions that teachers participate in PD because of their **commitment to students**: "As

teachers we are so worried that we are doing things right in our classroom, we want to do best by our students, do best by our school and areas of weakness" (6-1). Teachers reported that they were **not interested in participating** in some PD opportunities in the past that did not help them in this way: "Sometimes I would, you know, just barricade in my classroom, hide." (12-1), or: [I] have to run from this class to that class and then it's coffee break and then back in and you've got to sit and listen and, that's when I feel sorry for the kids, sometimes" (14-1).

For the criterion of enthusiasm, expressions concerning past PD experiences indicated that they would have liked for PD to be **more interactive**: "It was really hard when you don't really have anyone to talk to… I found it difficult that I was not able to sit and meet with people and show them things and talk about those" (20-1).

But teachers did express that they looking forward to and **excited about SDPD**: "I was very excited because I could be in this [study] and do the stuff I wanted to do [for PD]. Because it's what I need to do." (3-1).

In terms of pride and inspiration, teachers' expressions about past PD experiences were also almost completely negative. Some teachers reported that some PD experiences conveyed to them that they were **not doing enough for their students**. One teacher described how they learned about problems that students can have but not solutions to those problems: "Well, now I know what all these things are and oh my gosh and how do I deal with them. And I think you're more flustered after than when you first walked in" (14-1). Another teacher described PD events that she felt had **unreasonable expectations** for her as a teacher: "Oh, so I'm just crap as a teacher? So, I don't want to come away feeling like that

and a lot of the time, that's what I come away feeling like — like I'm not doing enough"

(13-1). Teachers reported also that going outside of the sanctioned PD activities led to some

fear of being reprimanded and that this **discouraged them from taking risks** with new

ideas: "I can only enhance my teaching by trying new things and if I am fearful of getting

slapped down, reprimanded, for every failed risk, then I don't want to take risks… I become

stagnant" (11-1).

     Absorption. For the engagement component of absorption the criterion of

immersion in work was not expressed positively in the pre-intervention data. For example,

one teacher stated that she participated in PD prior to the intervention but found that the PD

was **not appropriate** for her: "I get very disappointed because what is being provided is so

beneath where I'm at … so, I get very frustrated. And I patiently sit through it and nod in

niceness and answer the questions, but it's not particularly helpful" (6-1). Another teacher

was very descriptive when he spoke about how he thought that a typical PD experience for

him was not appropriate for his needs:

> Typical professional development activity… show up early, the session starts late, the
>
> coffee is bitter, I'm impatient and bored because the person in front can't articulate,
>
> has little confidence in what is being spoken to and typically speaking, despite what
>
> was promised in the description, has very little to do with my professional practice. (1-
>
> 1)

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Table 16: Themes Reflecting Engagement (Pre-intervention)

Themes Reflecting Engagement (Pre-intervention)

Components	Criteria	Themes	Explanation
Vigour	Effort	Low effort put in	Teachers did not expend much effort in PD activities
	High Energy	PD is a time to rest	Passive PD seen as the norm
		Teachers had aspirations to connect	Teachers expressed their desire to have interactions with other teachers
	Resilience	No data	Teachers did not express that they had worked through difficulties in PD situations
	Persistence	No data	Teachers did not express that they had continued effort during PD activities
	Motivation	Demands of job — less motivated	Teachers saw that workload sometimes prevented motivation during PD
		Would like more PD choice	More choice was seen as a possible motivator for PD participation
Dedication	Enthusiasm	Teachers wanted sessions to be more interactive	Sessions that were active were valued (but not described as typical)
		Teachers were excited about SDPD	Teachers saw SDPD as an opportunity that might be exciting
	Pride and inspiration	Was implied by PD that teachers were not doing enough for their students	PD that asked teachers to perform unreasonable

		Unreasonable expectations for teachers	tasks were seen as demoralizing PD providers that did not understand teachers' context were seen as unreasonable
		Fear of being reprimanded; discouraged from taking risks	Teachers considered PD that was unconventional as risking criticism
Absorption	Immersion in work	Teachers did not participate	Teachers did not participate in some PD activities that they saw as not applicable or useful
		Teachers not sure what was not appropriate	Without clear guidelines, teachers were unsure of what they were able to do for PD
	Time passing quickly	No data	No teachers expressed statements about how time was passing in PD in the pre-intervention data

Summary of Pre-intervention Engagement Themes. The teachers reported few expressions of engagement with past PD experiences prior to the intervention, but did express positive indications of engagement as they contemplated doing SDPD for the coming school year. This might have been due to the self-selecting nature of the participant sample, and the awareness of the participants of the nature of this study. The participants interviewed were not reporting high levels of engagement with PD as the study began, but they were looking forward to being more engaged in their learning as they attempted to do SDPD for the study school year.

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The Activity System — Pre-intervention Teacher Perceptions

Teachers in the pre-intervention stage expressed an understanding of this activity system and how they (the Subject) interacted with the Object (PD). They described the rules and customs with respect to PD clearly and were able to articulate what changes they would like to see in these rules, and were also descriptive of what they perceived as barriers to pursuing their needs and interests for learning, namely a lack of control, choice and autonomy in PD decisions. The teachers stated that they wanted more collaboration and interaction in their teacher communities, that the hierarchy of administrators were important both for their support for teachers and for their enabling (or preventing) of teacher autonomy in PD. The most cited tool was the PGP, although it was seen as one that was not being effectively used prior to the intervention. In their interactions with the Object, the Subject was clearly experiencing some contradictions, namely lack of choice and autonomy, and lack of clear guidelines and expectations surrounding PD, notwithstanding episodes described where teachers were denied permission to participate in some PD, or were forced to participate in PD that was not of interest.

Teachers were indicating that they were agential in terms of their perceived abilities to produce desired results, and reported considerable perceptions of self-efficacy toward meeting their own learning needs but were less confident in their ability to forestall detrimental consequences if they took risks in PD situations. They were self-reflective in their desire for more control over their PD experiences, and some were seeing how decisions were made about PD as reflective of how other school district decisions were being made. Although teachers in the pre-intervention phase spoke little of their reflexivity when learning with others, they indicated that they typically did not feel supported in

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proposing their own PD activities. Teachers demonstrated intentionality when they worked

to get permissions in place to do SDPD and when they spoke of pushing at boundaries for

PD to be able to get what they perceived that they needed.

Teachers indicated few of the engagement components of vigour. They expressed

that they had little energy and did not expend much effort in most PD situations pre-

intervention, describing PD instead as a time for rest. They did not express perceptions of

resilience or persistence, and their explanation for their low expressions of motivation

included that they had heavy workloads. Teachers expressed that they had dedication for

their students in the pre-intervention interviews, but had little enthusiasm for PD activities

and in terms of pride and inspiration several teachers described how unreasonable or

unrealistic PD activities could make them feel less pride in their practice, to the point of

being demoralized, but also expressed that they were fearful of sanction if they took risks by

pushing at the boundaries of what was considered as acceptable by administrators with

respect to PD activities. Teachers also expressed little to no absorption or involvement in

their PD work in the pre-intervention phase, except for one teacher who had recently led a

PD session for his peers and reported learning much about his practice from the experience.

As the intervention began then, it was clear that this activity system was

experiencing some tensions and contradictions between the Subject and the Object and that

the Goal, teacher agency and engagement, was not highly indicated in the teachers' accounts

of this system. The teachers did express some perceptions that SDPD might help them to

alleviate some of these tensions or contradictions as the intervention began.

Intervention Naturalistic Observation: Four Self-directed Professional Development Projects

In this section I briefly describe four SDPD projects that I observed on PD days during the study year. All quotes are from recorded notes in my research journal and from participants who consented to participate in this research project. Participant numbers are not included for these quotes as they were not always noted, and because not all the statements quoted are from participants who were interviewed.

Example 1: Interactive Journals/Binders in Elementary English Language Arts

Every teacher from the elementary school that participated in this study participated in this project, where the goal was to produce a comprehensive resource for teachers for teaching elementary English Language Arts (ELA). The resource included producing what these teachers called interactive journals, which were digital documents that explain and chronicle that teacher's experience in teaching the grade level ELA course, including notations of ideas that worked well, places where students struggled, etc. These teachers also compiled binders with shared resources and rubrics that included samples of student work. This project was intended to help the teachers to coordinate between grades, as they described it, to be "on the same page" regarding what the students were learning to lead up to leaving school after grade 6 with some well-developed skills. The project aimed to have students become more "self-reliant and well-prepared" as they left the community school and traveled to another larger community school for grade 7.

When I visited these teachers for the first time on the first PD day, some teachers in the group spoke about the small rural community in which the school was situated as

growing rapidly in population, and that they had more students with special needs entering their classrooms. Some teachers also spoke of the difficulties with large class sizes (30+ for grade six for example), and the frequency of teacher turn-over as being challenges that this school had encountered recently. The teachers described to me how this project aimed to help new teachers to understand what had been done and what goals the teachers had for students in higher grades, and to make it easier for all teachers to see the progression of skills in LA that were mapped for this school and their students.

This group described themselves to me as being a "tight-knit" group that all "got along" with each other, and were happy to share resources, materials, and advice with each other. They spoke about how new teachers often started their teaching careers at their school and how they needed "lots of support". The teachers expressed that since they were distanced from the central administrative hub as a rural school that they often felt isolated and not well-connected to other schools. These teachers also described how they felt that the "ground was shifting" as the district imposed new report cards, or highly recommended certain pedagogical approaches (recently they had been funded to attend an expensive project-based learning seminar for example). They expressed in this first meeting that "consultants tell us to do this and include that", but that these experts "don't understand what we deal with".

This group met for all the PD days, mostly at the school, but when one PD day was held at the larger population center about a hour's drive away, and the teachers were told that the morning keynote session was not optional, these teachers acquired permission from their principal to meet at one of the teachers' homes (who lived in this larger community) to

avoid the long drive out to the school during the lunch break to work on their SDPD project in the afternoon.[23]

I observed this group on two occasions. On the first occasion they were gathering their materials, spreading them out on library tables in order to organize them and see each others' work, and using digital documents to work collaboratively on putting together a spreadsheet-like document that included provincial curricular connections, grade level assignments and rubrics, and links to other resources. On the second observation day, teachers were working in pairs and individually on grade level materials, getting ready to share these in the binders and on the digital document. One teacher was laying her students' work out to photograph it and make notes for other teachers that might teach at that grade level, and other teachers were working in pairs on the digital document, organizing material that others had added. Two teachers were working on posters for their classrooms that illustrated concepts (e.g. letter writing) in a consistent way between grades. These teachers talked about "collaborating to scaffold learning between grades" again at this meeting. They also spoke about the PD work they were doing was work that would have to occur (if not for the opportunity to collaborate during this SDPD project) on teachers' own time, and that meant that the project, in their opinion, would have been "stretched out for so long that it just doesn't get done".

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[23] When I, later this day, mentioned this home meeting to the Director of Learning Supports, she was surprised that this was given permission by the principal and indicated that this might not be approved in the future. No reason was given by her for this, but this might be due to accountability or even public perception of PD concerns.

At the end of the school year, these teachers described to me that the project was mostly complete, with enough materials and digital documentation for use by the teachers the next year, even if staff changes occurred in the school (which did happen). These teachers spoke about the idea of doing the same project, but for Mathematics, and possibly including other neighbouring rural schools in their collaborative group for this for the next school year.

Example 2: Locally Developed Course Community of Practice

Only one teacher in this school district was presently teaching a particular locally developed course (LDC)[24], and she had developed her program over the several years prior to this study that she had been teaching it. The course was one that was being newly implemented by other school districts in the surrounding areas as this study took place. This teacher had no colleagues in this school district who would be able to work with her in this subject area, and so, early in the SDPD project planning process, this teacher began planning to organize a community of practice sharing group of teachers from several other school districts. She was able to acquire the names and email addresses of other teachers of this subject through her network of contacts, and prior to the first PD day she contacted these teachers and invited them to an in-person sharing session to be held at her school on this district's PD day. Since this PD day was not a PD day for some of the other districts, this meant that teachers had to get permission to attend this meeting, and they had to get coverage or substitute teacher funding as well in order to attend.

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[24] Course not named as this would identify the participant

On the first PD day, there were 10 teachers seated in a circle in this teacher's classroom when I arrived. They were introducing themselves, and it was apparent that they had come from several other school districts, sometimes driving several hours to attend. Many noted how they were already anticipating the value of this opportunity to share. Some said that they were there learn from the collective, and that they wanted to make contacts with others working in this area, and many thanked the teacher organizer for bringing them together. Over the next hour that I observed, they self-organized and set an agenda for themselves, which included discussion regarding curricular challenges, challenges to those whose training was considered to be insufficient to teach this course, and challenges to starting and growing the courses into a program in schools and school districts.

The teacher-leader of this SDPD sharing session (and study participant) phoned me that evening and expressed her appreciation for the opportunity that she felt her participation in SDPD had afforded her. She described how the teachers had worked through many of the issues that were mentioned in the introductory circle, and that they were now connected and that she would act as the hub leader to coordinate the teachers in the future. This participant described how her attendees had "cried when they left" because they felt "supported and bonded". She told me that they asked her "When can we do this again?", and as a result she said that she felt "synergy" from the teachers, and that they had "shared their passions". She said that she thought that she had "made a difference today" and that she wanted to continue in this role in helping other teachers in this way.

Although this group did not meet again this year, this participant reported to me later in the school year that the teachers had continued to communicate and were working

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through the curricular, training and other issues that had been brought up at the sharing

meeting, and planned to continue to meet in person in the future.

Example 3: CTS Teacher Working Group

For this CTS (Career and Technology Studies) subject (Woodworking), two teachers

who participated in this study were involved in projects that intersected during this school

year. One of the teachers was developing skills in making a type of project that was

attractive to students and required some skills not typically taught by CTS teachers at this

level. This teacher asked me to come to his workshop on a day prior to the first PD day and

he showed me his woodworking project sample (a Cajon drum) he had constructed and told

me that he was planning several SDPD projects for that year, including bringing in a

craftsperson skilled in constructing this project to his school for a district level PD session

for woodworking teachers and also hosting a session at a neighbouring school district to

help other teachers with implementing this project.

Later on, during the study year, this teacher organized a PD working session on a

day that was not a PD day, but was a non-instructional day for high schools — a day during

the January exam week that students were not present that teachers could use to prepare for

the next semester. The session was held at a school in another school district, but teachers

from any neighboring school district (including the one that this teacher worked in) were

invited to attend. This participant invited me to this full-day SDPD session where 7 other

CTS teachers assembled in the woodworking shop. When I arrived, they were learning how

to make certain components of the project that were crucial to its successful completion.

The teacher-leader was just finishing his explanation of how to make this component when I

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arrived, and then the teachers dispersed individually or in pairs to work on creating their

prototypes. As I walked around the room observing, the teacher-leader gave advice on how

to do certain tasks, and how to find certain tools and component materials needed. Several

partially built projects had been brought to the session by the teacher-leader and these were

used to demonstrate skills needed at different points in the construction process.

This teacher also became a participant in sessions organized by one of his peers at

another school during the study year. In this SDPD project, the teacher-leader was bringing

together several high school and junior high woodworking teachers from other schools

within the school district to his shop to make 'jigs' for students to use to help them create

projects more efficiently. These materials would then be shared with junior high teachers

who "can't afford pre-prepped wood supplies". He used his network of contacts to invite all

the woodworking teachers in the district to the SDPD session he hosted, but found it

difficult to find the contact information in some cases. The participant who led the Cajon

session described above attended this session and described that he attended because he

"needed to go to see what [the other woodworking teacher] is doing".

When I arrived at this session, the teachers were all working in small groups at the

various woodworking machines, collaborating with each other and asking advice from the

teacher who led the session, who was a journeyman cabinet-maker. This teacher-leader

described how plans were being made at this session to use the next PD day to "come to

consensus" about what students should know at the different levels and as they moved from

junior to senior high school. The participant who led these district teacher networking

sessions had applied for a small amount of funding for materials for these sessions from the

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Director of Learning Supports and had received them, and expressed that he was grateful for this indication of support for his initiative.

Example 4: High School English Teacher Professional Learning Community

During the first week of November, 2014 Participant 1 told me about his plans for a High School English Teacher SDPD PLC and how he felt able to do this for the next PD day — in January — which he thought was too long to wait between PD days. He was, however, looking forward to guiding this department through issues of perceived teacher assessment reliability and how this could be addressed, and also how to make transitions between teachers and courses smoother in his school and between Junior and Senior high English courses. He expressed that his recent experience as a Junior high English teacher made him ideally situated to do this work. He also expressed that communications between schools could and should be improved using this same process of teacher collaboration.

On January 5, 2015, the next PD day, when I arrived just before noon, most of the English teachers at this high school were assembled in a circular fashion with student work and curriculum documents and computers on the tables in front of them. They were so immersed in their work that Participant 1 took me into another room so as not to disturb their work as he explained that they were doing some "organized group grading with discussion," and said that he found it "remarkable" at how close their grading standards were to each other. He talked about how this should work to increase teacher grading "confidence," especially of more inexperienced English teachers, since student complaints about grading were seen to be an increasing problem for the teachers in this department. That afternoon he was planning a smaller meeting with new teachers to the department

(since he said that some teachers had been assigned to teach English that semester who had little to no training in this subject area), and that they would be sharing resources as well. When I returned to the group, the teachers were discussing their reasoning for giving grades on essays, and were actively listening to each others' ideas for how to improve the assignments and the grade schemes. Two teachers expressed to me how valuable they thought the work was, and how they felt that the collaborative environment was improving their confidence and their practice.

On the next PD Day (March 6, 2015), the English teachers were engaged in collaborative grading, making rubrics and discussing assessment practices and types of literature to be used when I arrived to observe them. They invited me to an afternoon session that they were holding with the teachers from a different high school in another town in the school district (not one formally in this study) and several teachers expressed that they were looking forward to this opportunity. One told me that they had tried to get teachers from a junior high that fed students into their high school program to attend this session but "things got in the way," and he explained that there were administrative problems and schedule conflicts that did not allow this to occur on this PD day. There was a student teacher in this group who expressed to me his appreciation of this opportunity to learn from experienced teachers, and one teacher expressed to me that they felt that they had "run out of time" this year to get a consistent relationship going between schools but that they were considering this to be a good goal for the next year's PD.

These four examples of self-directed professional development projects illustrate how teachers utilized the time and space that was afforded to them for SDPD. These project

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descriptions are not meant to be representative of all the SDPD projects in this study, but they exemplify how teachers were interpreting and operationalizing SDPD in their contexts. In the next section, I summarize the results obtained from the post-intervention interviews of the teacher participants.

Post-Intervention Collective Teacher Results

In the following sections, as with the pre-intervention interview data, representative quotes from the teachers are used to exemplify themes (bolded) that emerged from the data within each Activity Theory construct as the intervention was coming to a close. These themes are then summarized in tables that follow each section. These themes give a picture of how professional development was perceived by the teachers after the intervention, with the activity system constructs used as an organizing framework for the data. For the last construct, the Goal, the results are grouped according to the components and the criteria that describe agency and engagement that were described in Chapter 2. All post-intervention interview data are compared with the pre-intervention data, both in the tables and in the summaries that follow the thematic analysis.

Themes Reflecting the Subject, Post-intervention

Since the teachers had introduced themselves to me and described their practice and their past PD experiences in the pre-intervention interviews, they did not typically describe their general perceptions of PD again in this second interview. Instead, they described how SDPD had changed their views of themselves with respect to PD.

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Some teachers found that it was **challenging to adapt to less regulation** of PD as they attempted SDPD. And some teachers, once they had attempted SDPD projects, reported that they were now considering how their PD might be **in alignment** with district and school goals or trends. One teacher described how he saw this as a collective change in perspective that had to occur:

I feel like some people are not really sure [about SDPD] because they've never really had the choice of doing their own professional development. They're just so used to doing whatever the school wants that's what I do. I mean, if that's happened for the last 30 years then I'm sure you're not constantly thinking, well what's my professional development going to be? vs. what' the school's professional development going to be?, and kind of incorporating yours into that. (20-2)

Lack of regulation over how PD time was spent was often seen as a change from past experiences. One teacher described how he was used to being more regulated during a PD day, and how this caused him to have to try to regulate his own productivity: "I'm so used to my day being divided into manageable chunks and to have to organize myself was tough" (16-2).

But many teachers who participated in SDPD appreciated the autonomy they experienced and spoke of how this supported their consideration of their **identity as professionals.** One teacher put this succinctly when referring to PD: "For those of us that believe in the professionalism of teaching, you shouldn't need Big Brother to be watching over your shoulder to do what's right" (6-2).

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In the post-intervention data, those who had attempted SDPD spoke about how the diversity within their group helped them to move forward in their learning. One teacher described how they adapted to the **diversity of learning styles** in their SDPD group: "I'm more random abstract, and a couple of my work colleagues who are more gung ho (sic) are more anal retentive, in a good way. You need both" (16-2). Another teacher described how the relationships that were built over the process of working within a school SDPD project team transferred to her attitude toward her work in general: "We all have different strengths and weaknesses and we complement each other well, so for me that was a big reward. The whole year was just coming to work because I enjoyed it" (10-2).

In summary, the teachers, as the Subject in this activity system, were not discussing how tired, overwhelmed, isolated or resistant they were as they did in the pre-intervention interviews, even though it was nearing the end of a school year when post-intervention interviews were conducted. In the post-intervention data teachers were considering their roles as part of the PD process and expressing that they were considering what types of groups, situations, and regulation worked well for them as they took more control over their learning situations and considered this as a professional responsibility.

Table 17: Themes Reflecting the Subject (Post-intervention)

Themes Reflecting the Subject		
Pre-intervention	**Post-intervention**	**Change**
Committed	No data	N/A
Limited time	No data	N/A
Limited energy	No data	N/A
Tired, overwhelmed	No data	N/A

Isolated	Adapt to different learning styles	Teachers described how they had to learn to work together
Applicable/practical PD valued	No data	N/A
Some (more immersive) PD experiences are rewarding/useful	No data	N/A
Learning needs not met	Need to adapt to less regulation	SDPD caused teachers to consider how to meet their own needs
Sometimes resistant	Part of being a professional	Teachers meeting their own learning needs was seen as more of a professional responsibility not a matter of mandatory attendance

Themes Reflecting the Rules, Post-intervention

This study involved an intervention that initiated a change in the rules or customs in this school district, since teachers being encouraged to plan and conduct their own PD had not been actively encouraged in the past (See rules outlined in Appendix 5). In the post-intervention interviews, many teachers expressed **appreciation for the opportunity** to self-direct their PD: "Our principal this year trusted us to use that time for good and it was appreciated, I appreciated those days, that time" (18-2).

However, teachers had suggestions for how SDPD could be more effectively deployed in the future. For example, teachers indicated that they would have **liked to have had clear expectations** for what administrators would accept for SDPD: "I guess having a clear guideline of what's a reasonable thing to be doing here [for SDPD] and what's not a reasonable thing to be doing here would be good" (5-2). One teacher stated that he was

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worried that he would not be seen as doing legitimate PD as he worked on his SDPD

project:

> I think I understood what you were saying [about SDPD] pretty clearly but at the
>
> school level there was a bit of confusion as to well, if I'm doing this instead [of the
>
> regular PD events scheduled], am I supposed to tell someone? Who am I supposed to
>
> tell?... I don't want to look like I'm slacking off or not doing anything. I want people
>
> to know that I'm active but it's hard to show that when you're just in the science
>
> office for eight hours. (5-2)

Some teachers indicated some concern that although their principals had been in

attendance at the introductory meeting and expressed support for this study initially, that

there still might be repercussions for not doing what had been, in the past, typically

sanctioned for PD. This teacher's statements suggest that he was still **wary of**

administrative disapproval if he participated in SDPD: "If we're scared we're going to get

into trouble, then we're not going to push those limits … I'm talking being creative and

learning stuff, right? And trying new things, and having things fail in our classroom" (3-2).

One teacher postulated that teachers were wary about participating in SDPD because they

might have tried to propose ideas for PD previously and that this had not gone well: "If

you're shot down once or not listened to you may not want to talk/ask again" (20-2).

Another common concern from teachers was that some of their colleagues **would not**

use their time productively and that this would cause administrators to withdraw the

autonomy that they experienced with respect to PD in the future, or that SDPD would be

excessively monitored:

I worry that… [there are] a few [teachers] that will ruin it for the whole…. Or [SDPD]

is going to be super-monitored where we have to make this report about exactly what

we did and that kind of stuff, we're always having to answer to someone. I mean, I

think there has to be some accountability… but I don't want somebody constantly

coming in and checking over my shoulder and — what are you doing? (20-2)

There were some teachers who anticipated that if SDPD became more widespread,

that some teachers might be **unwilling to participate in SDPD due to past experiences**.

One teacher explained why she thought that some teachers might be unwilling to do

participate in any new PD initiative:

If people aren't doing something [like SDPD], it's because something has happened to

them along the way. And where I've stopped giving, it's out of lack of support,

overbearing restrictions, or I've just been too beaten up and I'm not willing to give

anymore. (12-2)

One of the most common expressions from teachers about the rules regarding PD in

the post-intervention data was that teachers appreciated the opportunity to do SDPD but

thought that this should not be forced and that **PD options offered by the school or district**

were still desired. Both of the following quotes illustrate teachers' concerns that organized

PD opportunities would no longer be available:

To say that I don't like organized events is not true, OK? Because I do enjoy those, I

enjoy the camaraderie, I enjoy it for, sometimes just looking through the list of stuff

… ho! I didn't even know that was a thing! I want to go see that. (6-2)

And:

> I feel like there will continue to be district-wide PD and all that sort of thing and I think if people have the option to opt out and do their own thing instead, I'm hoping that that doesn't kill the district PD…. I was hoping that it would sort of drive it in the direction to make it more useful. (5-2)

A principal and an assistant principal expressed that they were concerned that having PD be entirely self-directed might preclude them from being able to have all the staff at their school do the same activity for PD. This principal explained: "There are some times when we need to have everybody in the staff together because there's some things we all need to be on the same page about" (7-2), and an assistant principal also commented: "I think there has to be some group things that we do, regardless of whether you agree with it or not, because you have to be a team. That would be a challenge, I think" (10-2).

There was teacher support some for school-wide or district-wide PD initiatives as options as well:

> I do see some value in going to sessions at the school and the structured PD from above, so in my mind, I think a mix of the two is good. I don't think I would be one hundred percent happy doing either or. I like the mix. (18-2)

Since only three schools in this school district were formally enrolled in this study, when teachers organized or were invited to SDPD events at other schools, they ran into **scheduling problems** with other schools' mandatory PD occurring at the same times. One teacher had some advice for the future implementation of SDPD: "If we're going to take this

on as a division, what we ran into as issues was the scheduling of other people's professional development." (4-2). This teacher also expressed that he was invited to or hosted several SDPD sessions that were all taking place at the same time and he had to respond: "It would be great to come, love to come, can't come" (4-2).

Several teachers also expressed that ideal PD would take place when needed, and not when scheduled periodically into a school year: "When professional development is required, [it would be ideal if] you don't have to wait until there is a school-based day or division day or teacher's convention. That it could be as required… timely" (17-2).

In summary, the pre-intervention data for the rules for this activity system indicated that teachers were critical of the mostly administratively directed nature of PD that they had experienced in the past, and they indicated that they were looking for more guidance as to what other initiatives might be accepted other than those that were prescribed for PD. They expressed frustration with PD that was short in duration and had little time for follow up. Teachers in the pre-intervention data also reported that they considered PD to be a professional obligation, but some teachers did not consider that their needs were being met by what was being offered as administratively directed PD (even with some choice).

 In the post-intervention phase, some teachers were still looking for clarity as to what was acceptable to administrators as a legitimate PD activity, but many teachers who participated in SDPD expressed appreciation for the ability to choose self-direction as an option. However, the teachers also expressed that having some PD options offered by the district or school as was desirable, and they were appreciative that they sometimes were not aware of PD opportunities or topics that might help them and their practice. Some teachers

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were still wary of administrative disapproval if they tried something new, but others

participated in several SDPD projects, and so experienced problems with scheduling as they

all met at the same time and date, or some interested participants were unable to attend due

to other mandatory PD requirements. Teachers also expressed some concern that the rules

would change back to mostly directed PD if other teachers did not use SDPD time

productively, and one explanation that was offered as to why teachers might not participate

in SDPD was that teachers may have had experiences in the past that might discourage them

from taking initiative in their PD experiences.

Table 18: Themes Reflecting the Rules (Post-intervention)

Themes Reflecting the Rules		
Pre-intervention	**Post-intervention**	**Change**
Prescribed	School/district offered PD still desired	Although PD should not all be prescribed, some activities that are organized by others are still considered valuable by teachers
Lack of boundaries	Would like clear expectations	Clear considerations of what is expected would aid in SDPD decision making for teachers
Professional obligation	Wary of administrative disapproval	Teachers are not sure if SDPD ideas are considered acceptable by administrators
Not voluntary	Appreciation for the opportunity	SDPD allows freedom for teachers to act independently and this is appreciated
Appropriate/flexible time commitments	Problems with scheduling	When SDPD is planned there may be difficulty in

		coordinating teachers' schedules
Teacher initiated ideas not allowed	Past experiences influence willingness to participate in PD	Teachers who have previously been refused PD ideas are less willing to suggest SDPD
Little follow-up	Some may not use time productively	If other teachers do not use their time well, SDPD may cease to be an opportunity for all
Needs-based PD desired	N/A	N/A

Themes Reflecting Community, Post-intervention

Community in this activity system was considered to be any groups of teachers, and almost all[25] of the SDPD projects were done in groups. This supported the pre-intervention statements by the teachers that they desired more collaboration and that they considered this to be an important part of PD. **More collaboration** was one of the most commonly reported themes in the post-intervention data. One teacher summed up what he saw happening in his SDPD group:

> There was a lot of collaboration and collegiality, that had been there [pre-SDPD] but it was more pronounced, and at least it was more visible insofar as I could tell. And at the same time just seeing that excitement of people realizing, hey, I'm teaching this course, I haven't done this before and I can do this. I'm capable. (1-2)

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[25] All of the SDPD projects that I was aware of (since all participants who signed consent forms did not tell me about their projects and some teachers in the district were doing SDPD without enrolling in my study) except one were group projects.

One principal described the collaboration that he observed on PD days as his staff worked on a SDPD project:

When the teachers, when they're working and they're collaborating, and honestly, the one day, you should have seen, the Grade 3, 4 and 5/6 teachers, they were in the library, I think they had stuff piled on every table in the library… it was truly a sight to see. (7-2)

Two teachers described how their SDPD collaborations **were a benefit to their students**:

It was nice to finally get that community… I think I somehow transpired that community into [my] class. …Grade 11 kids don't talk about community, that's not even in their language. And yet they say, we found community, and it's because I found community. … This group [of students] got it to another level. (12-2)

And: "We got our books together and we laid them out and, you know, it was wonderful to see how those kids are going to grow… So, I think working together was wonderful" (14-2).

Even when they expressed that SDPD had helped them to become more collaborative in their practice, some teachers suggested that this could be improved with **more consistent time** to do this work: "Just once a month to meet with another school, just to get ideas and stuff like that so ideally just having a little bit more consistent time [to do SDPD]" (2-2).

One teacher who did not technically work in a physical group worked with other teachers digitally and reported that the **relationships** that developed as a result of this work were important, even when they did not meet in person:

[I did some] consulting with two colleagues from [other schools]. We shared materials … this was reciprocated because I had already sent them stuff in years past. But it was a huge reward … that I have contacts that I've never worked with, but I can still email them and get materials within 24 hours. (11-2)

Teachers suggested that **making professional contacts** was valuable and making these easier to find would be important if SDPD became more widespread:

What I would look at is giving people, affording people the opportunity to work within a community of practice … but make sure the people are connected and that they have the opportunity to work together if they choose to … then, here's everybody's email and make sure you know each other. (4-2)

One principal, whose teachers all participated SDPD, decided to try some online learning for PD as he was now not responsible for planning and implementing school-based PD that year. He reported that he was disappointed in this experience however, further reinforcing how collegial interaction in a community of professionals might be important for any PD, including SDPD: "I realized that online learning, although there may be a big future in this, I need the [face-to-face] interaction with people" (7-2).

It was common for teachers who participated in SDPD to report that collaborative groups helped teachers when they found **common ground** or **similar interests**: "[In my

SDPD group I was] talking to other professionals who had experienced that, the exact same thing that I was experiencing at that point or who are much further ahead, was beautiful" (10-2).

Another teacher described this and how the principal became part of this process:

> Having staff that are interested in the same thing helped me a lot last year because then we were able to work together to create resources and even bring that to the principal and when there's more than one of you who's interested in something then bringing that to the principal and letting him see that, yeah, maybe this is something that we can do together as a staff. (9-2)

One teacher described how SDPD helped them to collaborate and how this option for PD might address teacher concerns that PD was not applicable to them:

> [I appreciated] the opportunity to work with other people who do what I do, Period. When that opportunity comes up, take it right? You can always have people cry, well, we're doing this and it's not germane to me and what I do, well, here, here's an opportunity to do it, Great. (4-2)

Several teachers talked about how SDPD had allowed them to find a **purpose or passion** for learning. One teacher described how she had come to think about all PD since her experience with SDPD:

> It needs to be purposeful for you and for you to collaborate with other people, so purpose, it basically needs to be useful in your career. And it needs to have a purpose, a job, relevance. Not airy fairy stuck in a room, and a smelly room. (8-2)

And another teacher described her experience as affirmational:

When we had the option to do this [SDPD], it was like, finally, like it was a breath of

fresh air, it was… Ok and not only will I get to go to what I want, I'll, if that's not

offered, I'll create what I want. And I know others are looking for it too because I get

phone calls and emails all the time through teachers around the province asking me

questions… I think I've found my passion, right? Like I think I've found my… I have

all the answers, they have all the questions and it reaffirmed my — how far I've come.

(12-2)

Teachers sometimes expressed pride in their SDPD projects, and explained how they

were **taking initiative** for their own learning and for collegial learning as they described

their projects:

I put together one [SDPD project] where I had phoned most of the people in the

division, we had seven … teachers in and we [worked together on a common task] and

shared a bunch of ideas. … The other [SDPD project that I initiated] was with the

junior highs, we were over with [teachers at another school] and a bunch of us got

together and worked on what we can do with the new [curriculum], so what we're

going to do high school to junior high to articulate what we're doing so their skill set

matches [what they'll learn in senior high] and we can provide something back to [the

junior high teachers]. (4-2)

As part of a community, teachers considered themselves to be professional, and that

this meant that **the majority would be productive**, even if not as regulated in a SDPD

situation. This teacher described how he would like to see SDPD work in the future:

> [Let] professionals be professionals. Not having to pander to the lowest common denominator. We know that there will be people who won't work so therefore we have to have a fully directed] PD [day] for everybody to make sure that those five or six people will do some work is not an excuse that 25 other people would accomplish great things. I was pleased with this year. So, continuing with it… and then when we do have full PD days, let people do what they want. … I don't know if anyone has actually gotten in trouble for sitting in the cafeteria for an hour just talking, but we are a lonely profession. (11-2)

Some teachers speculated as to what SDPD might look like for them in the future and saw that they might **need diverse experiences to meet their needs**. One teacher summarized this:

> For me, I like to have some time to collaborate with other teachers, like, especially say there's a certain project that we really want to get done and we're really excited about and want to focus, then there's other times where there's maybe a book that you really want to read and that's something you want to read on your own, so I think that one's kind of flexible kind of thing depending upon what you want, you need, for your professional development on that day. (20-2)

One principal also expressed her concern that administratively directed PD could not meet diverse teacher needs, and that this problem might eventually cause changes to the annual teacher's convention:

> So, that is my wonderment, of what will happen with our ATA two-day convention because I think that it is impossible to plan K to 12, rural and urban, English, French,

German, second languages, counsellors, consultants, school leaders, teachers, there is

no way you can plan for all those people in two days the PD that they're looking for.

(17-2)

When asked how SDPD might be improved for them in the future, teachers often

asked for **more consistent meeting times**. One teacher described her vision of this in some

detail:

I would love to have like monthly collaborations with either, whether it be the staff at

the school, and ours is really tiny so I say that but probably in bigger schools it would

be grade group kind of or division meetings. … Let's do half a day every month and

just kind of have time to check in with everyone and see what everyone's doing and

get those ideas and the collaboration going. (2-2)

In summary, the pre-intervention themes reflecting the community were mostly

aspirational in that teachers expressed that they would like more collaboration and

collegiality, that they would like to develop more contacts and relationships with others that

had similar interests and experiences, that this might increase their confidence in trying new

things or avoiding administrative sanction, and that they would like to have less barriers to

these types of experiences.

In the post-intervention data, teachers were reporting that they had sought out and

found more collaborative and collegial interactions, that this had been valuable for them,

that they were able to meet their and their colleagues' needs this way and that their students

were seen to have benefitted from this process. Some teachers expressed that they were

finding that purpose and passion was important in their learning process and that of their

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students, and that even if all teachers were not using their SDPD time well, that they thought

that most would take their professional responsibility seriously, and that they would like to

have SDPD time more consistently available to them in order to meet various needs and

enable different collaborative situations.

Table 19: Themes Reflecting Community (Post-intervention)

Themes Reflecting Community

Pre-intervention	Post-intervention	Change
Collaboration is important	More collaboration	Teachers reported more collaboration in post-intervention
Similar interests with others	Similar interests/common ground Purpose/passion realized Needs/Interests are diverse	Teachers were looking for others with similar interests in the pre-intervention phase and found these and some common ground in the post-intervention phase
Making/keeping contacts/relationships valuable	Making professional contacts/relationships	Teachers wanted more contacts and were able to make them in the post-intervention phase
Working through new ideas important	Positively affects students Students benefit	New ideas were seen to be translating into classrooms as positive changes
Sharing as part of identity as a professional	Taking initiative	Teachers saw themselves as initiating sharing situations
Less barriers to diverse experiences needed	Consistent meeting times needed	Barriers to diverse experiences lessened but scheduling issues prevented some collaborations
Less fear of sanction/judgement working in groups	Majority will be productive	Teachers observe that if majority do SDPD, sanction should fall to only those who are not productive

Themes Reflecting Tools, Post-intervention

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As mentioned previously in this chapter, the physical tools for doing PD had not changed significantly between the pre and post-intervention phases of this study. However, organizational or planning tools and resources were considered by teachers in the interviews.

The most often-cited tool in the post-intervention data was still the PGP. Teachers spoke about how the PGP as a tool was being used by them to plan and evaluate their SPPD experiences. Some teachers found that SDPD was supported by their PGP: "Everything we got to work on [in our SDPD group] was something that I was interested in, or something in my PGP, or school goals that we had, so, no, I wasn't disappointed" (9-2).

Some teachers had suggestions for how the PGP could be used in the future as a SDPD evaluative tool:

It would be nice to even with a fellow teacher maybe talk about your [professional growth] plans with each other or try to, not necessarily hold people accountable to it, but just discuss and say hey did I actually do that or not and sometimes that's hard to evaluate for yourself. (5-2)

Other teachers suggested that the PGP needed to be a more flexible document:

It just seems, OK, get [PGPs handed] in and then they disappear for 10 months and then it comes out until you get your review. … Those professional growth plans are a living thing that ongoes throughout the year and need to be revisited on a regular basis. Maybe [teachers should be] encouraged to do that, to change, refine, whatever. (16-2)

One principal, as she discussed how the PGP could support SDPD also suggested that the PGP could be used flexibly: "I think there needs to be in professional growth plans, and I don't know if this is the way that things are going to be happening, but there needs to be that flexibility in there, that carpe diem, right?" (7-2).

Some saw the PGP as a format that could work for teachers to showcase their SDPD work and thus be accountable for their learning that year:

I think there has to be, either through the PGP, there has to be some kind of accountability of this is what you did, without it being Big Brother registering… but if the accountability can be shown through the PGP then I don't see it's that onerous or that different from what we're presently doing… to me that should be enough of a justification, this is what I did. (6-2)

Another teacher spoke of how the PGP might keep her accountable as she did SDPD and suggested a way to have this occur without feeling intimidated by the process: "Maybe a discussion with someone you trust [about your PGP could occur]. … What if you didn't meet your goals?... and you feel kind of guilty and that's kind of a personal thing. You're kind of laying your guts out there for someone else to see" (18-2).

A PGP review process was also suggested by another teacher as a way to decrease isolation and as part of the learning process:

That would be interesting, to now go and see what was on your [PGP] and what did you do and if you didn't meet that goal how can I help you? Or what did you do that I

was inspired by? That's who I would… because I don't really have anyone here,

right? (12-2)

Teachers also spoke about **resources** as tools, and that the **ability to access** these

and **create** them with colleagues was important. One teacher described that they spent time

in their SPDP project searching for appropriate classroom resources: "the biggest thing is

allowing teachers to access the resources that they need for their students… just be able to

have that flexibility to be able to reach their kids the best" (2-2), and another teacher spoke

of how they appreciated the time to use, adapt and share resources that they already had

with their SDPD group:

> Working in your environment … so you have all your resources, you know where
>
> everything is, what it is, how to find it and working with colleagues so you can kind of
>
> mash your brains together and having sufficient time. (8-2)

Some teachers spoke of how this development of resources was not completed by the

end of the school year. One teacher spoke of how he was disappointed that he did not get

more done:

> I got a lot of stuff together, but getting resources and to sift through and to organize it
>
> and reformat it, because it comes from all different sources, I didn't quite achieve
>
> that… I've got binders of stuff, but didn't end up with an end-product. (16-2)

Other teachers spoke of how this gathering and adapting of resources was an ongoing

process: "We kind of set a goal for what we wanted to do throughout the year and every

time we had a PD day we kind of got out our materials and worked just as hard as we could" (9-2).

There was some discussion by teachers about how SDPD might be **more work** for them. One principal discussed how teachers might handle this: "In the end it might end up being a very big piece of professional learning, but there's manageable chunks keeping in mind school schedules, personal schedules, and just life" (7-2), and one teacher spoke of how conceptualizing what he needed was going to require more thought: "Holy crap this is going to be a whole lot more work to be self-directed, and then to find things to kind of slot into your [interests]" (6-2).

Teachers still cited **time and money as barriers**, especially as they attempted to do PD with colleagues that required funding. One teacher was succinct when asked what PD barriers he experienced during the study year: "Time, money and flexibility please and thank you. I would very much appreciate having an allotment of PD days that I can take when I need to without feeling the guilt of being out of my classroom" (1-2).

Other teachers observed that, for SDPD, a barrier that arose was the difficulty in **knowing where to find what was needed**: "Money was a thing that I have to figure out [for SDPD] and the other thing is just finding things sometimes in the area that I want to know more and find someone to teach it to me or I can learn it or do whatever" (3-2). This teacher suggested a solution to this problem: "You need that 211 [to call] that says OK, this is what you need? Here's where you go" (3-2).

Some teachers spoke about how they saw others providing **teacher leadership** as important in SDPD groups. When asked what helped him to pursue his interests or passions

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in the study year, one teacher stated: "Probably [name of teacher] taking the lead… sort of a leader. Not that I couldn't have done that myself, but it was the first time and you're kind of getting used to it and not sure what's kosher and what's not" (5-2). One assistant principal spoke about how he saw teachers at his school take leadership roles for PD: "I know that when teachers do that [go to conferences], and they can go see something that they're so excited about and they bring it back to the school, it changes practice and that's what we're all about" (10-2).

In summary, in the pre-intervention data, teachers again saw that time and money were barriers to them being able to pursue their PD interests, but thought that classroom resource creation, modification and sharing were important parts of the PD process. PGPs were acknowledged to be professional responsibilities but they saw little oversight or debriefing of these documents.

In the post-intervention data, teachers had much more to say about how the PGP could be used for SDPD and how it could be used to plan and to self-evaluate SDPD projects. Although they saw that some teachers took the lead in SDPD projects, they still found that one barrier to SDPD was the need to find the resources or expertise needed to fill their needs. Some saw this as more work for them.

Table 20: Themes Reflecting Tools (Post-intervention)

Themes Reflecting Tools		
Pre-intervention	**Post-intervention**	**Change**
PGP limitations (little oversight)	PGP useful for SDPD	Teachers saw the PGP as a tool that could be used more effectively to guide SDPD

Time barrier Money barrier	Time and money as barriers	Time and money are still barriers
Opportunity to create, modify resources	Accessing and creating resources	Teachers saw creation and modification of resources as less of an opportunity problem and more of a problem with access and taking initiative
	Teacher leadership	
	SDPD More work	N/A

Themes Reflecting Hierarchy/Division of Labour

In the post-intervention data for this study, most teachers found that **their administrators** were **supportive** of SDPD, and that this was **crucial** for them to be able to do SDPD. This was the most common comment from teachers concerning the hierarchy. One teacher's comment was representative of most:

I think it's important to make sure that administration understands that people directing their own professional development is a reasonable thing to do. Right? And that was the experience here, very much supported by our administrators, no question, you know, what is it you're doing, how can we help you with what you are doing? (4-2)

Many teachers spoke of the need for **confidence in principal support** when asked what helped them to pursue their interests and needs for PD this year:

I think administration is the biggest key. Because if they're going to make a big deal about you missing a certain thing — [our principal] was all on board. … [Principal's name] was very good that way to try and make it more of a team effort and I think that openness, that just helps. (6-2)

One teacher summed up her entire SDPD experience for the year, how the experience was facilitated by her principal, and how this affected her:

> With the PD we've been able to select for ourselves, it's given me the time to work on things to bring back to my classroom, to then use in my classroom, which isn't always the case with PD, obviously. … Our principal, [name], was very open-minded and flexible and wonderful to work with. [Principal's name] was not the type of principal that comes in and tells us how we need to run our classroom, right? He just wants us to run our classroom as best as we can. That's also been another factor contributing to that. (9-2)

Some teachers reported that it wasn't what principals were doing as much as the lack of sanctions for not doing the normally organized PD that facilitated SDPD for them: "I never felt like administration kiboshed anything [that teachers proposed];… in previous years they have" (6-2), and another teacher confirmed that when they heard from other teachers that these teachers had no difficulties with administrators when the self-directed their PD, their fear of reprimand decreased:

> The mere fact that I'm not hearing bad stories would tend me to believe that alright, anything that I try, within reason, if it's professionally responsible, would be taken as an acceptable practice [for PD]. So, I don't know if they did anything so much as what they didn't do. (11-2)

Some teachers expressed the importance of principal support for teacher initiatives more positively. One teacher described that she had developed "that confidence that you can

approach [the principal] and talk about professional development things that you are interested in and know that you won't be shut down" (20-2).

Principals were also aware of the **reciprocal** nature of the **trust** relationship that had to occur for teachers to be able to do SDPD. One principal summed up how he felt that his support of teacher SDPD could lead to a more cohesive staff culture:

> I have to trust them too, so that's the whole team-building that we do in the school right? We build relationships, we build trust and we build a team. … I think [SDPD] increased trust and probably made [teachers] feel more valued, and made them feel more like a professional. (19-2)

One area that teachers saw as potentially problematics was if the district or school **goals did not line up** with those of a teacher's SDPD plan. Although in some cases the alignment was good, some teachers saw some potential for conflicting priorities. One teacher expressed that this was in alignment for her: "What our school was doing really lined up with what I wanted to do. I think if I wanted to do something really different from what our school was doing there would be more barriers" (10-2). Other teachers noted that their interests did not align with those that they saw as authorities, and that this was problematic for them: "There was one barrier [to SDPD] … I really felt, and this is an interesting thing, that I'm not on the 'in' with people in charge of [my subject area] in this school division. There's a hierarchy and I'm definitely not on the inside" (6-2).

Principals reported that they felt **less responsibility to organize PD** for their staff during this study year: "In the past it's been, I'm responsible for planning it, for making sure [PD is] done, and that we're all here and that we're doing it. Whereas this year it was —

well this is our professional learning day, you have your growth plan, and you're working"

(7-2). Some teachers also noted this change in responsibility for PD:

> [Our principal] could see that the staff was doing good things and so that took pressure
>
> off him to plan PD… because principals, that's not their specialty, I'm sorry, and often
>
> times they'll be scrambling, oh, I have to do PD and I don't know what to do with it,
>
> so let's do this and this. (6-2)

To summarize, the pre-intervention data for the hierarchy or division of labour in

this activity system revealed that teachers were aware of the influence of authority,

especially of principals, and that principal support would be important for teachers to feel

comfortable doing SDPD. Principals also expressed that they understood that their roles

would be important as gatekeepers for teachers wanting to pursue their own goals for PD.

Both teachers and administrators expressed awareness that granting teachers more autonomy

in their PD would help to engender more trust from teachers toward administrators, and that

this might improve school culture overall.

In the post-intervention interviews, teachers reiterated the importance of

administrative support, especially principal support for SDPD, and spoke about how they

needed to have confidence in this support to feel that they were able to pursue their own

interests during allocated PD days and times. Both principals and teachers noted that

principals were being freed of the responsibility to plan and implement PD for their schools

and that this was enabling for teachers. Some concern was expressed by teachers that their

goals and that of the school or school district might not be in alignment and that this could

lead to barriers for SDPD.

Table 21: Themes Reflecting the Hierarchy (Post-intervention)

Themes Reflecting the Hierarchy

Pre-intervention	Post-intervention	Change
Principals and Administrators can be limiting or enabling	Administrative support crucial for SDPD	Teachers reported more administrative support for teacher autonomy in PD
Administrators are gatekeepers for PD	Confidence in administrative support needed	Teachers saw administrators more as support than as gatekeepers
Understood that PD must fulfill certain requirements	Goals may not line up	School and district goals for teacher learning may still pose conflicts or barriers to SDPD
Leadership influences school cultures (which affects PD)	Principals have less responsibility to organize PD	Principals seen more as facilitators than PD leaders
Trust is important for both teachers and administrators	Reciprocal trust	Teachers reported more trust in administrators with and administrators acknowledged that trust in their teachers was important

Themes Reflecting the Object: Self-directed Professional Development, Post-intervention

The Object that was discussed by the teachers in the post-intervention interviews was SDPD. Teachers described their projects to me if I had not observed them directly and also described their conceptions of SDPD as an experience during this study year.

The most common theme that arose with respect to teachers' experience with SDPD is that they had **autonomy**. One teacher's response was representative of many:

You should, as a professional, know what you want to work on or where your

strengths aren't, so where you want to focus or maybe where your strengths are and

want to become even stronger and become an expert in that area. Either way really is

bettering yourself and you're the best judge of where you need to better yourself

because you're the one who's going to put that effort in and a lot of the time with

professional development. (20-2)

With autonomy, for some teachers, came **responsibility for PD**. Teachers indicated

that they were evaluating their choices and thinking about how they might make them

differently in the future. One teacher explained this well:

I love the self-directed, I think it's wonderful and I think that's how they should go,

although I also feel that there should be some sort of checks on that because I could

see people taking advantage of it or not using it in the best way possible. Like even for

myself this year … we got so much done it was wonderful but then at the same time I

always question myself, well maybe I should have gone to some other PD sessions

too. … That was my only concern, because like I said it was so wonderful and I think

I got more out of this year than a lot of other years, but at the same time I started to

question myself, like should I have done different things. (9-2)

This statement is also interesting in that this teacher was making a self-reflective statement

as she spoke about her questions to herself about what she should be doing with respect to

PD which is part of the Goal for this activity system — an agency component.

Other teachers expressed that SDPD allowed them to **not** be required to attend

mandatory PD sessions and being able to do work they considered to be useful instead:

I liked self-directed PD, not having to go to mandatory sessions that are unrelated to what I'm doing or the ones that are related to what I'm doing is basically the same as stuff that I've done for 10 or 15 years. So, I liked being able to work with [teacher's name]. (15-2)

Some teachers took advantage of the ability to be **flexible** in **format** and participated in several groups with different goals and ideas:

I was working [on my SDPD project], but the other group, they were working on grade 10 resources but just being present they sort of chipped in when I mentioned something and I added to their conversation so it wasn't just exclusively on what I was doing, it was that sharing which was great and we have a few younger staff members now who bring that energy and those different ideas and I hope I can bring something to the part now with my experience and the things I've tried, so it was good synergy there. (16-2)

Many teachers that participated in SDPD projects expressed that their learning was more **relevant** or **based** more upon their **needs** than past PD experiences. One teacher's description is representative of other participants in this study:

The reason why I think [SDPD is] perfect is because it has given us a day that we normally would've been doing other things but [it] has [me] stopped and [I've] said, what do you need to do? And I think that's exactly, well I know that's what we did. And I know that we definitely use the material that we had been planning for and it has only bettered our classrooms. So, I think that having that time, for the PD days, it's been amazing. (14-2)

A principal also described how he thought about supporting his teachers' diverse learning needs during this past year as they tried SDPD:

Just because I like to learn this way doesn't mean that you do. So, we shouldn't be judging our people, let them take chances, let them learn, let them go. Not everything is going to work and that's ok, but they'll learn from that too. (19-2)

And, as in the pre-intervention interviews, several teachers described an ideal PD situation that had time for **both SDPD and more directed** PD opportunities:

I think a split between kind of structured PD built by the superintendent and his staff versus time [for SDPD would be ideal]. I don't think either/or is the way to do it in this day and age. You can't be all structured or all unstructured. I think there has to be a mixture, what that mixture is? Let's start with fifty-fifty and work from there. … People who organize it, bring the speakers in and that, how do they define what's good? What people want? Maybe the superintendent and his staff can ask the teachers what they want. (18-2)

Both teachers and principals expressed that they would **like to continue** in some way with having SDPD being an option in their school district moving forward. One teacher summarized her experience: "I've enjoyed the opportunity to be more self directed. This certainly is a work in progress but I see huge value in it, definitely and it's something I'd like to continue. I learned a lot from the first year" (16-2).

And one principal described how SDPD would not be ideal for all teachers, but that he thought that it could become more widespread with time:

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I think it [SDPD] is going to grow over time. You're always going to have people who are going to take advantage of it, right? … No matter what you do, you're always going to have those people. But I think that we have to work with those people who are excited about it, and it will grow. (19-2)

Although some teachers and principals spoke about those who might **not use** their SDPD **time productively** or **waste** their **time**, few said that this occurred for them in this study year and in this sample of participants. However, one teacher was honest about the challenges he encountered with time management as he attempted SDPD:

I did find it more challenging than I thought it would be to structure my time and use it well and not get distracted. I felt like a student again to a point. Yeah, I'd have more definite goals probably. You know, timeline, I'd have at this time I'd have this done … You know, bells define our day, and with organized PD, what you're used to, it's all organized for you. It's a matter of just turning up. If it's more self-directed, there's more wasted time, to be honest. (16-2)

And another teacher expressed that he could have used his time more productively: "Maybe [I had] too much freedom, there's pros and cons to that … you know it [SDPD] is what you make it, so there was the odd day that I thought could have been better" (18-2).

In summary, teachers advocated for more choice and more freedom for PD in the pre-intervention interviews and were requesting more relevance in their PD experiences, although they were clear that they were not requesting that all PD be SDPD as they saw value in some PD choices organized by the school or district.

In the post-intervention data, the teachers expressed that they had more choice and freedom with respect to PD, that they appreciated a flexible format for PD that allowed them to form and join groups as needed, and that SDPD had helped them to pursue PD that was more relevant and needs-based for themselves and their colleagues. They also appreciated the option of not going to mandatory PD sessions when none were offered that they considered relevant. Teachers also acknowledged that they had a responsibility to professionally develop, but some reported that the decreased structure of SDPD allowed them to waste time or not use time as productively. Most participants expressed a desire to continue to have SDPD as an option in the future and some teachers and administrators predicted that it would become more widespread in this school district in the future.

Table 22: Themes Reflecting the Object (Post-intervention)

Themes Reflecting the Object		
Pre-intervention	**Post-intervention**	**Change**
Need more choice	Had autonomy	More autonomy in choice for PD indicated by teachers
Want more freedom	Not Forced or Mandatory	Teachers appreciated not being forced to attend mandatory PD
Not all PD should be SDPD	Mixture of SD and directed PD	Teachers reported that a mixture of SDPD and directed PD choices would be ideal
Needs to be relevant	Relevant/needs based	Teachers reported more relevancy in their PD and that they designed it to fit their needs
	Flexible format	Teachers appreciated the flexibility of SDPD

Responsibility for PD	Teachers saw PD as their responsibility
Desire to continue	Teachers saw SDPD as valuable to continue
Wasted time/time not used productively	Some teachers reported that they could have used their time more productively

Themes Reflecting the Goal: Agency — Post-intervention Themes

In the following paragraphs, for each component of agency (e.g. self-efficacy, self-reflection, reflexivity, intentionality), the criteria that describe these components are used as an organizing framework to discuss how the data reflected the participants' agency in the post-intervention stage of this study. Representative quotes that support the participants' expressions of each criteria are used as exemplars. For each agency component, after the themes for post-intervention agency are discussed, the themes reflecting the pre-intervention interviews that concern agency are compared and contrasted with those in the post-intervention phase of data collection.

Self-Efficacy. A common theme that arose from teacher responses in the post-intervention interviews, was that teachers felt that they 'could produce desired results' because they had **more control** over their PD experiences:

I think just the PD time that we're given to do our own thing [was good] because I think it gives you more control. I think it makes me a better teacher for kids in my classes everyday, right? If I'm a basket case (sic) with things to do and no time to do it, that gets reflected in my efficacy as a teacher. You know? So, give me some time … and I will be a better teacher for those kids guaranteed. (18-2)

Some teachers expressed that they had confidence in being able to **educate themselves** on topics that they felt they needed to learn and thus forestall detrimental consequences that might arise. One teacher, for example, described that she felt that she could best determine where she needed to learn: "Because obviously after 25 years, I know where my holes are. … I felt like at least [now] I could educate myself on areas that I think are weak spots" (6-2).

For self-efficacy then, the teachers in both the pre-intervention and the post-intervention interviews were expressing agency with respect to their views of how they were capable of meeting their own PD learning needs. In the post-intervention data however, teachers were not requesting more say in what was planned for PD, or speaking about having to justify their requests for the types of learning that they thought fit their needs or that was in alignment with their levels of proficiency as they did in the pre-intervention interviews. Teachers reported more control and some confidence that they could meet their own needs for PD by educating themselves in the post-intervention data. With respect to forestalling detrimental consequences teachers expressed some fear of reprimand if they were to work outside of the normally directed PD options in the pre-intervention data, but reported that they were able to work on what they considered to be their weaknesses as they did SDPD projects in the post-intervention interviews. Thus, most of the teachers interviewed indicated that they had some self-efficacy with respect to PD both before and after the intervention in this study, but that they were more enabled to act on their perceived capabilities to meet their PD needs when interviewed following the intervention phase of the study.

Self-reflection. Teachers often expressed in the post-intervention data that they were 'evaluating past outcomes' and determining that they could use their **self-understanding** to **know what their needs are** for their PD experiences and that they were able to use SDPD to meet those needs:

> I know what my needs are. I know best what my students' needs are. … So, I don't have a lot of time in life, so let me get to the heart of the matter fast and fulfill my needs that make me go home and feel more satisfied more productive, not frustrated, alienated, tearful, you know, resentful… I'm so done with that, and finally I think somebody is listening. And, so to self-direct is healthy and meaningful and necessary. (12-2)

Some teachers also had some new suggestions for how to **self-evaluate** if their needs had been met and if they had achieved their own goals in a SDPD project. One teacher mentioned the PGP as a tool and asked for:

> …an opportunity to go, look, here's where you started, here's where you are now, let's do this like a very simple math problem — what's the difference? Pure and simple. … It's about checks and balances and being able to point and say, this has changed — definitely this has changed. (1-2)

Teachers, post-intervention, reported that they were considering how power, identity, subjection and freedom were interacting as they participated in SDPD. The most often-reported theme that arose from this agency criterion was that teachers regarded the **autonomy** or **freedom** that SDPD provided as valuable. One teacher put this succinctly as she described her SDPD experiences during the year: "I wasn't wondering if it was OK, I

know full well what I need to do … [so I had] freedom. Freedom and opportunity" (12-2).

Another teacher described how when he was not able work toward fulfilling his perceived

needs during pre-intervention PD time, this affected his relationships with administrators: "I

think [PD] should be dependent on the person. … Maybe this is why I don't do well with

administrators who micromanage. I flourish when you allow me just to go on my own and

figure stuff out myself" (6-2).

But teachers also considered how other teachers might struggle without the structure

that more directed PD imposed. One teacher described how this **freedom may not work**

well for all teachers:

> We go and learn something and then we come back and a) we don't have a great
>
> group to share it with and b) we have to develop it all by ourselves — so just having
>
> that time to do that [was valuable], but I think that some, without structure and [having
>
> a determined] place to go, they have to come up with it, they might have a hard time.
>
> (2-2)

In summary, for the self-reflection component of agency, teachers reported being self-

reflective in both the pre and the post-intervention data, as shown by the many themes that

arose for this component of the data. In the pre-intervention data, teachers reported that they

considered that the PD offered to them was often not relevant to them, that feedback about

PD or about the topics considered was sometimes ignored, and that they would like more

control over their PD experiences. Although only one teacher reported doing this in the past,

this teacher remarked that when he organized PD for himself and his colleagues that it

allowed him to acquire a deeper understanding of his work.

In the post-intervention data, teachers expressed that they were using their self-understanding to consider their needs, determine what they needed to fulfil those needs, and that they had some ideas for self-evaluating their success at meeting these needs. However, some teachers noted that the lack of structure that SDPD allowed might not work for all, as it required considerable self-reflection and initiative on the part of SDPD participants to organize themselves.

Reflexivity. In the post-intervention data teachers did report that they were 'adapting to the needs of members of their groups'. One teacher described how the group dynamics helped him to gain **awareness of what others were doing** and thus **find possibilities**:

> [I was] becoming aware of what [my needs] were… And becoming aware became part of, I guess, collaboration with my colleagues. Just finding out that, oh, that's a possibility and I hadn't realized that before. And without that opportunity I don't think that would have happened. (1-2)

Some teachers expressed that working in collegial groups helped them to **self-evaluate their practice.** One teacher described how this group interaction might help teachers to be more reflexive about their practice:

> It's a very easy trap to get in to where if you're a person with a little bit of tunnel vision, you think that what you're doing is OK. And it may or may not be, so if you don't have the opportunity to have other people step in and look … to see what they do, then it's easy to pretend that what you've got is groovy and it may or may not be. (4-2)

Teachers reported on their emerging views of the social environment as they participated in SDPD. Some teachers drew **parallels** between SDPD and **student learning**:

I just think it's very valuable to have that choice [in PD]. I mean we give our kids choice all the time, and we promote that in their projects and their learning and giving the capability of having ownership of their learning so I think that's very beneficial to give that to teachers as well, to trust them to learn the way that they need to. (2-2)

Another teacher expressed how he saw how giving teachers more autonomy for PD would enable those who **choose to change their practice**:

I think it's important that [administrators] understand hopefully that the work that people do is useful work. I can choose to accept that I want to change my practice … So just a little bit of trust and understanding that people who do want to do better will. (4-2)

Other teachers saw that there was **flexibility** in the SDPD model for working in different types of groups. One teacher described that she appreciated:

… the flexibility and the open-endedness of [SDPD]. Choosing what is going to work for your program. What's going to work for you and what is important to you and what do you feel is not maybe developed enough in your classroom or in your grade or even in your school. (8-2)

In summary, for the reflexivity component of agency, in the pre-intervention interviews, there was little evidence that teachers were perceiving that they were adapting to the needs of members of a group, but in the post-intervention data teachers reported that

seeing what others were doing in their SDPD groups helped them see what was possible and that they considered that the flexibility of the SDPD model could enable them to work in different types of groups. In the pre-intervention phase, teachers reported that when they took initiative to direct their own PD experiences that they felt unsupported, and were also concerned that any PD activity, even PD organized by their peers, would require their non-voluntary participation. In the post-intervention data, teachers drew parallels between their experiences in SDPD and students' learning in flexible learning environments, and suggested that both teachers and students benefit when learning involves choice and flexibility.

Intentionality. Teachers in the post-intervention data often reported that they **wanted to continue** to self-direct their PD and that they had some plans to put collective action into place for the next year for SDPD. The following quote is representative of these:

> Now that I've done the in-school thing, I would love to do the multiple schools or get some grade group things going. I was actually talking to my principal about that I might try to start a group with [other school] and maybe some [other school] teachers and stuff like that because I have a bunch of connections [there]. … I'd love to do the division kind of thing now and maybe go from there and see how that goes. (2-2)

One principal reviewed the **PGPs** that her staff had submitted for the previous year and compared them to the present (study) year and reported that these documents **reflected changes** in these plans:

> The data on the PGPs is quite clear… there was a real trend … I will say that for people who are doing self-directed work there is much more of a focus… that is the

> biggest difference between last year's and this year's [PGPs]. I feel as if this year's
>
> growth plans are really intentional. (17-2)

It is especially note-worthy that this principal used the term 'intentional' in her description

as this is the term used for this criterion that reflects teacher agency.

And, some teachers also reported the ability and need to act as an imperative that

would continue. One teacher 's description of her year experiencing PD was representative

of how teachers saw PD in the post-intervention data as both a **responsibility** and a matter

of **trust**:

> I cannot see me going backwards now. I really can't. If I don't have a say in what I
>
> do [for PD], I can't see myself staying in this profession. If my hands are tied that
>
> much and you don't trust what I'm doing and you don't have a sense that I have the
>
> responsibility [for my own learning] … that would be one thing that would put me
>
> into resentment. And that's a strong word. (12-2)

In summary, for the intentionality component of agency, in the pre-intervention

interview data teachers reported that they experienced barriers in their plans to put collective

action into place in the form of having to get permissions to do PD that was not directed by

their school, school division, or other authority. In the post-intervention phase of this study,

some of the teachers were making plans to continue their SDPD for the next school year and

expressed that they would like SDPD to continue to be an option in the future. A principal

who reviewed the PGPs of her staff for the year before and during the study reported that

teachers' plans were more focused and "intentional" (17-2) for the study year. With respect

to teachers' ability and need to act, teachers in the pre-intervention interviews expressed that

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they felt that they were pushing at boundaries when they tried to self-direct their PD prior to

the intervention, but saw that SDPD might expand to other schools or school districts as

teachers became familiar with the idea, and that self-directing their PD was both a

responsibility of teachers and an indicator of trust from administrators in the post-

intervention data.

Table 23: Themes Reflecting Agency (Post-intervention)

Themes Reflecting Agency

Components	Criteria	Pre-intervention	Post-intervention	Changes
Self-Efficacy	Can produce desired results	Teachers can identify own needs and can work together to meet these Little say in what was planned PD not in alignment with teacher needs or level of proficiency Had to justify their requests	More control	Since teachers were controlling their PD, teachers were not expressing frustrations with barriers to them being able to achieve results that they desired
	Can forestall detrimental consequences	Fear of reprimand or failure	Can educate self	Teacher expressions of fear of reprimand or failure were replaced with expressions of confidence in ability to meet their own needs
Self-reflection	Evaluates past outcomes	PD not relevant Feedback ignored	Self-understanding Can self-evaluate	Teachers were better understanding themselves and their

		When teacher organized, they had deeper understanding of their work	Know own needs	practice through their PD experiences
	Consider how power, identity, subjection and freedom interact	Need more control over PD	Freedom/autonomy	Teachers saw themselves as becoming autonomous in their PD decisions, but worried that some colleagues might not use time or freedom to best advantage
		PD control decisions lead to questioning of other decisions by leaders	Freedom may not work well for all	
Reflexivity	Adapts to needs of members of group	No data	Awareness of what others are doing	Teachers were more aware of the PD activities of other teachers
			Finding possibilities	Teachers became more concerned about where and how to find PD resources for themselves
			Self-evaluate practice	Some teachers were confident that they could evaluate their PD activities
	Emergent view of the social environment	Teacher initiative in PD unsupported	Change in practice is a choice	Some teachers saw that they had autonomy - could choose to learn or change or not (whether PD was SD or not)
		Concerned if PD organized by others is not voluntary	Flexibility in groups	Teachers saw that the ability to change their membership in the group they worked with was valuable
			Parallels with student learning	In post-intervention only teachers compared

				SDPD to how their students learned best
Intentionality	Plans to put collective action into place	Needed to get required permissions	Want to continue	Barriers to SDPD were lessened
			PGPs reflect future plans	PGPs were seen as tools that could be used for SDPD
	Ability and need to act	Pushing boundaries	Expanding possibilities	Boundaries of what was acceptable for PD were less restricting
			Responsibility	Determining their learning needs and meeting them was seen as a professional responsibility
			Trust	Expressions of trust for administrators and from administrators to teachers increased

Themes Reflecting the Goal: Engagement, Post-intervention Themes

In the following paragraphs, for each component of engagement (e.g. vigour, dedication, absorption), the criteria that describe these components are used as an organizing framework to discuss how the data reflected the participants' engagement in the post-intervention stage of this study. Representative quotes that support the participants' expressions of each criteria are used as exemplars. For each engagement component, after the themes for post-intervention engagement are discussed, the themes emerging from the pre-intervention interviews that concern engagement are compared and contrasted with those in the post-intervention phase of data collection.

Vigour. The first component of engagement, vigour, had 5 criteria: effort, high energy, resilience, persistence and motivation. Representative comments from that concerned PD effort indicated that if and when teachers were able to work on areas of growth that they cared about because they were able **to control** their PD to fit their professional goals that they would **put more effort** into PD: "I really feel that the most important thing about professional development — it has to be something that you are passionate about. It has to be something that you are willing to put your full effort in to become better" (20-2).

For the criterion of high energy, some teachers reported that participating in SDPD allowed them to feel energized:

[This year's PD] was great. To be honest with you this past year was probably the most energized I've seen people as far as professional development goes. We basically sat down a week, two weeks ahead of time and we were able to, of course, respond to emergent demands in a meaningful way and in a timely way, follow up on things that we had already established since the last PD day. (1-2)

Some teachers spoke of how being excited or energetic as teachers in PD could translate to **excitement for students**. One teacher explained the connection:

So, PD for us [teachers] … you really need to share what you're practically doing [with each other], that's where the excitement comes in the class, that's where the good experience for the students come, that's where they get excited and motivated. So that's the best part of [SDPD] for me. (4-2)

For the criterion of resiliency, one school counsellor related her experience with SDPD with her ability to **build school resiliency**:

I liked using some of the skills [I have learned in SDPD], I'm starting to get to where I can see that I can make a difference … and that I have the ability to change, not just single kids' lives… but the path for the school, right? I can help build resiliency in the school or in a classroom … So, there were some definite wins this year for things like that. (3-2)

Representing the motivation criterion, one principal spoke of how SDPD could allow teachers to **see good outcomes** from their work, and this could be motivating for them to continue and to expand this work, and this was representative of several teachers' responses as well:

If we want students to come to school everyday and really enjoy their learning, then when we are engaged in professional development, we should also enjoy what we are doing. Because then everything else, you're going to be self-motivated, you're going to be interested, you're going to want to finish it, you're going to enjoy it you're going to see the rewards in it, you're going to see how good the outcome is and you're going to want to do some more. And it's that sort of effect of, it growing and growing and growing. (7-2)

In summary, for the component of vigour, in the pre-intervention data teachers reported that in terms of effort, PD was sometimes a time for rest, as their job demands might leave them less motivated to engage with PD. Teachers did see that making connections with other teachers energized them and that having more choice in PD activities

could be motivating for them. Expressions concerning resilience and persistence were not found in the pre-intervention data.

In the post-intervention interviews, teachers spoke of putting more effort into PD that they found relevant, and some spoke of how the energy surrounding teachers sharing with each other in PD could translate into more energetic classrooms for students. Participants also reported that when they could see good outcomes coming from their SDPD work that they were motivated to continue, and one participant reported how SDPD could help her to support increased resilience in her school.

Dedication. For the engagement component of dedication, there were three criteria considered: enthusiasm, involvement in work, and pride and inspiration. In this context teachers were being asked about their dedication with respect to PD, not more generally dedication to their profession, their practice or their students. For the 'enthusiasm' criterion, some teachers' responses indicated that they could **see the benefits** from SDPD and that this made them feel **empowered**. One teachers' comment expressed both of these themes:

Oh, I've just loved [SDPD]! I loved having the opportunity to collaborate with like minded people too. And just that choice that we always talk about how when we give kids choice how much more engaged and excited they are about things, well it's no different with adults. … I feel more empowered by my professional development this year and I feel a lot more confident and happy with what I've produced for my class and the time I've gotten to think and prepare things so that the kids … I've been teaching them better because I've gotten better. (20-2)

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This theme of **spreading enthusiasm** for and in SDPD situations was expressed by several other teachers as well. One teacher put this succinctly: "Just accept the fact that people who are excited about what they do are going to get excited and hopefully they can excite other people as well. You know that's the big part for me" (4-2).

For the criterion involvement in work, one representative comment about how SDPD was perceived to be **more productive and/or satisfying** was representative of several teacher responses:

I think this has breathed life back into my desire and ability to be a better educator…

This was a far more productive, satisfying, accomplishing way of approaching it [PD]

and everybody got way more out of it. I did, those teachers did [that came to this

person's SDPD sessions], the kids did. (12-2)

In terms of the criterion of pride and inspiration, one principal described his perceptions of how the teachers in his school viewed their work on SDPD during the year: "It was good work. It was a sense of pride and accomplishment [this year]" (7-2).

In summary, for the dedication component of engagement, in the pre-intervention data, teachers did not directly express enthusiasm for most past PD experiences, and were looking for more interactive PD experiences moving forward. However, they were excited about the prospect of beginning SDPD projects. Teachers did not express pride or inspiration when considering past PD experiences, but described PD experiences that they thought put unrealistic expectations upon them or made them feel like they were not doing enough for their students. Some teachers expressed fear of reprimand if they took risks with respect to how they moved forward in their practice, including what they said and did in PD

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situations. Teachers' expressions of their involvement in work concerned their interactions with students, but was not expressed about their PD experiences in the pre-intervention data.

In the post-intervention data, teachers reported that they could see the benefits of SDPD for themselves, their colleagues and their students, and some found this to be empowering. Some teachers expressed that they were satisfied with their accomplishments this past year doing SDPD. Some teachers and administrators noted that the excitement that teachers have when they are passionate about their learning can lead to the spread of this enthusiasm between teachers and to their students.

Absorption. For the absorption component of engagement, two criteria were considered: 'immersion in work' and 'time passing quickly'. For example, both of these two teachers commented about how they perceived that the group **did not want** the SDPD project **to end** and that their SDPD group had **used time productively**:

> [We were learning] all these little nuggets, and people were just grasping at them and holding on to them and three hours went by, the whole day went by, and nobody was ready to leave. We could have still talked another hour or two. (12-2)

And:

> So typically, we'd have the department coming together and more or less becoming a think-tank for the better part of six hours. I've never seen people take such a short lunch on a PD day before. (1-2)

In summary, for the engagement component of absorption, in the pre-intervention data, teachers' expressions included that they perceived that the more administratively

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directed PD offered in the past was often not appropriate for their subject or level of

expertise and that they did not want to (or actually did not) participate in PD activities that

were centrally organized as a result.

In the post-intervention data, participating teachers reported that they found SDPD

satisfying, that they considered that they used their time productively, and that they did not

want to stop as time passed quickly for them as they did their SDPD projects. Teachers

reported that PD fit their practice when self-directed and that they considered that they got

more out of their PD experiences when they self-directed them, both for themselves and for

their students and colleagues.

Table 24: Themes Reflecting Engagement (Post-intervention)

Themes Reflecting Engagement

Components	Criteria	Pre-intervention	Post-intervention	Changes
Vigour	Effort	Low effort	More effort when teachers have control over PD	Teachers indicated that they put more effort into SDPD than directed PD
	High Energy	Time to rest	Students energized, excited	SDPD helped teachers to find ways to motivate students
		Aspirations to connect	Teachers energized	Working with colleagues helped teachers feel more energy
	Resilience	No data	Builds school resiliency	Only in post-intervention was there mention of resiliency with respect to the effect of PD on a school
	Persistence	No data	No data	N\A

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	Motivation	Demands of job — less motivated	Can see good outcomes	When teachers could see good outcomes from their SDPD learning this was motivating
		Choice desired	No data	Teachers were no longer requesting more choice for PD in the post-intervention data
Dedication	Enthusiasm	Sessions could be more interactive	Can see benefits Empowering	Teachers could see how SDPD might empower or benefit their practice post-intervention, and how this was rewarding and could result in SDPD being more accepted in the future
		Excited about SDPD	Excitement can spread	
	Pride and inspiration	Not doing enough for their students	Accomplishment	Shift in teacher perceptions from guilt for not meeting sometime unreasonable expectations to accomplishment and pride in learning
			Pride	
		Unrealistic expectations	No data	
		Fear of being reprimanded; discouraged from taking risks		Fear of sanction when requesting PD to fit their needs was not evident post-intervention as it was in the pre-intervention phase
	Involvement in work	No data	Satisfaction, accomplishment	Teachers expressed satisfaction and accomplishment in PD only in post-intervention phase
Absorption	Immersion in work	Did not participate	Got more out of PD	Teachers expressed that SDPD was more appropriate to their practice and productive and that because of this they were more likely to participate
		Not appropriate	Fits practice	
			Productive/satisfying	
	Time passing quickly	No data	Didn't want to stop	Time seen as valuable and productive in post-intervention phase only

	Used time productively

Summary of the Activity System, Post-intervention

The intervention, a change in the rules in this activity system, did have subsequent effects on the Subject, the Object, the mediating factors and the Goal in this activity system according to the teachers' interviews. The teachers (the Subject) were considering their role in PD more as a professional responsibility and described how they were adapting to less regulation and more freedom, and how this was liberating, but how it also caused them to become more concerned about how their PD was meeting their own needs and also the goals of their schools, their school district and larger goals like provincial ones. Teachers described the post-intervention Object, SDPD, as more flexible and better able to meet their needs than more directed PD options. The teachers also described how their control over PD had allowed them to avoid mandatory PD that they did not find useful or engaging. They were still concerned about some barriers to PD, such as time, money and conflicting schedules, and several teachers clearly stated that they preferred some SDPD and some PD planned by others to remain in the mix in the future. In terms of community, teachers expressed that they had more opportunity to collaborate and make contacts and relationships via SDPD and that they valued this aspect of SDPD, but that finding contacts and appropriate resources were new concerns if teachers were to continue to direct their own learning experiences in the future. As for the Division of Labour, teachers expressed more trust in their administrators when they supported SDPD and administrators expressed that they were trusting their teachers as well to use their PD time productively. Teachers did not

express resistance to the rules or to their administrators as they had in the pre-intervention

phase once they were able to avoid mandatory PD and were given some autonomy in their

PD context. Teachers also shifted in their views of the PGP as a tool for SDPD. Several

teachers saw that the PGP could be better used as a guiding and flexible document for PD

planning and goal-setting and that it should be reviewed with others (but not used as an

evaluation) in order for it to have more relevance as a PD planning tool.

Chapter 6: Discussion

In this chapter, I use the results of this study and the organizing framework of Activity Theory to answer the research question. In the first part of this chapter I summarize this answer by outlining how the teachers' agency and engagement expressions changed as the study progressed from the pre-intervention phase to the post-intervention phase. I then discuss how Activity Theory helped to elucidate this answer by discussing first the Subject-Object-Goal dynamic, and how the data illustrated that this dialectical interaction was both important and changing as the study progressed, and then by outlining the contradictions in this activity system and how these are areas that might be productive to consider moving forward in this context. I then return to the argument, made in the first two chapters of this thesis, that teacher autonomy and self-directed PD are reflections of important power dynamics in school systems, reflecting how teachers are viewed as professionals and I discuss how the findings from this study reflect this stance. Finally, I suggest how this study makes a contribution to the field of professional development for teachers and make suggestions for further research in this area.

Research Question: *How do teachers' perceptions of their agency and engagement change after participating in self-directed professional development?*

It was evident in the data that the teachers who participated in the study and who self-directed their professional development experiences over the course of this school year collectively demonstrated shifts in their perceptions of their agency and engagement. In the following paragraphs I synthesize and summarize these results to provide support for my answer.

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Changes in Teachers' Perceptions of Agency

In this study, teachers were asked before the intervention and after the intervention about their experiences with respect to professional development, and, without directly being asked about any of agency components described in Chapter 2, their post-intervention interview responses demonstrated some shifts in their perceptions of their agency. The summaries that follow are reported as collective teacher results, but it was the voices of individual teachers that are synthesized here. This is congruent with the simultaneously individual and collective nature of teacher agency as discussed in Chapter 2.

Self-efficacy

In the pre-intervention phase, teachers expressed that they considered themselves able to meet their own needs for PD, but also expressed frustration with barriers to this, such as requirements for mandatory PD that they perceived as not relevant to them or their practice and requirements to get permission to engage in PD activities other than those organized by the school district for them. In the pre-intervention interviews some teachers were considering how their autonomous action with respect to PD might lead to detrimental consequences, such as sanction or reprimand for requesting or engaging in PD that was not administratively encouraged or organized. In the post-intervention phase of this study, teachers expressed more confidence in their ability and need to organize PD for themselves than they had in the pre-intervention phase, and most teachers who had participated in SDPD reported that SDPD had been productive and/or satisfying for them. Teachers also expressed little to no fear of administrative sanction for these self-organized PD projects in the post-intervention phase.

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Self-reflection

Teachers in both the pre and the post-intervention interviews were self-reflective in that they were able to evaluate past outcomes and consider how power, identity, subjection and freedom intersected with respect to PD in their context. In the pre-intervention phase teachers evaluated their past outcomes with respect to PD critically, reporting that they considered much of what they had experienced for PD was not as relevant for them as they would have expected or liked; some teachers reported that when they offered feedback to this effect that this feedback was ignored. Only one participant described organizing a PD session for his colleagues in the pre-intervention interviews, and he reported that this helped him to have a deeper understanding of his work, but he was also critical of the support he received for this initiative. In the post-intervention phase, teachers reported that they had gained some self-understanding as they participated in SDPD projects and had reflected on their own learning needs. Some teachers were considering how they might evaluate their progress during SDPD, and they had some ideas about how to do this in the future. Suggestions for how to self-evaluate SDPD often included descriptions of more effective use of the PGP as a planning and evaluation tool.

Teachers were able to clearly communicate their interactions with each other and with those in authority over PD in this activity system with respect to PD in the pre-intervention phase of this study. They saw control of PD as indicative of how administrators respected them as decision-makers, both with respect to their learning and with respect to other aspects of their practice. Most participants in this study advocated for more control over their PD activities in the pre-intervention interviews. Several teachers spoke of their

identity as professionals, and that this identity should include the autonomy to make decisions for PD, and several teachers made connections between the respect they were accorded as professionals and their ability to serve the needs of their students. In the post-intervention phase, teachers often spoke of the freedom and autonomy they had experienced as they did SDPD but were concerned that this freedom might not be used productively by other teachers or even by themselves. Further consideration of teacher autonomy and power in their role as professionals with respect to PD will be discussed later in this chapter.

Reflexivity

Notably, teachers in the pre-intervention phase of this study did not speak about adapting to the needs of members of a group, a key a component of reflexivity. They did, however, have an emergent view of the social environment for PD, commenting frequently that participation in PD activities that were non-voluntary with respect to the topic or activity was not perceived to be useful or engaging, and that they did not feel supported by administrators in taking initiative to organize or attend PD outside of what was seen as sanctioned by higher levels of the hierarchy. In the post-intervention phase, teachers participating in SDPD often reported that they had autonomy or freedom to participate in PD that met their needs and interests, and had appreciated the flexibility that SDPD had offered in terms of group membership and learning ideas. They also reported learning to work with others with diverse learning styles or interests. Some teachers in the post-intervention interviews expressed that they were aware that the type of self-directed learning that SDPD offered was in congruence with the types of learning that they sought for their students. Teachers also saw themselves as capable of changing their practices or their

attitudes as they learned, but considered that this was a choice for them, and that they were more likely to choose to make changes when they had more control over their PD experiences.

Intentionality

In the pre-intervention phase of this study, teachers reported that although they saw that collective action to meet their own PD needs was desirable with respect to PD, the need to get required permissions from administrators was a barrier to PD self-organization. Some teachers (and administrators) reported that restrictions of having to make PD fit school, district, or provincial goals narrowed what was considered acceptable for teachers in terms of what types of groups and topics were acceptable in PD situations. Several teachers reported that requesting or organizing their own learning groups outside of the sanctioned or more directed PD offerings was not encouraged in the pre-intervention interviews. In the post-intervention phase, teachers reported that these barriers and boundaries to self-direction of PD had lessened and some were considering meeting their needs with respect to PD as a responsibility. Most teachers suggested that SDPD should continue to be available and encouraged in future years, but that they would like for more directed PD organized by others to remain as an option for them. Trust from and for administrators were considered by participants to be important for this shift in responsibility toward more self-direction from teachers for PD, and teachers reported experiencing more mutual trust for and from administrators with respect to PD in the post-intervention phase of this study.

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Summary of Agency Shifts

Components of teacher agency were present both before and after the SDPD intervention occurred in this study, but the teachers' expressions of this agency became more confident in their own abilities to meet their PD needs, more reflective of their learning needs, and more aware of how they were working within groups and toward more student autonomy. Expressions of frustration with lack of control, relevance, and barriers to autonomy in PD that were common in the pre-intervention interviews were replaced with teachers evaluating their goals, taking more responsibility for what they were deciding to learn, but expressing some concern that this freedom or autonomy may not work for all, and with also concerns that SDPD might completely replace other PD offerings that were more centrally directed but also considered valuable.

Agency Changes May Indicate Shifts in Social Power and Responsibility

In Chapter 2, a teacher with agency was defined by Pyhältö et al. (2015) as "an active learner who is able to act intentionally, make decisions, and thoroughly reflect on the impact of one's actions" (p. 814). In this study, the participants who chose to self-direct their PD experiences did act with more intention and made decisions about how and what they learned, even if some restrictions of time, money, and schedules persisted as structural constraints. Teachers demonstrated self-efficacy and self-reflection throughout the study, with shifts toward more consideration of their role as leaders in their PD experiences in the post-intervention interviews. The teachers were beginning to consider PD as more of a responsibility for them to fulfil and less as an obligation to attend. Some participants expressed "well-justified opposition" (Pyhältö et al., 2015, p. 814) to barriers that they

perceived as preventing them from meeting their relevant learning needs, especially in the pre-intervention interviews, but there were few reports that this was significantly being expressed to those in power (administrators) at any point in the study as part of an "integrated causal structure" (Bandura, 2000, p. 77) that could effect social change. The teachers' expressions of opposition were being expressed to me under the protective umbrella of anonymity and confidentiality that this study provided. Participants did express individual agency as "being able to pursue self-determined purposes and goals through self-conscious strategic action" (Frost, 2006, p.20) in many of their experiences organizing and implementing SDPD for themselves and others, and a few were considering how this type of work might "transform dominant power relations" (Pyhältö et al., 2015, p. 814) in their school system.

The teachers' agency, as a form of social power, was emerging individually as participants began to take more responsibility and control of their learning needs in this study by acting as leaders and encouraging others to join with them in common learning experiences, and also collectively as groups met and began to work with each other to address issues and needs that were relevant to that group of teachers. The teachers expressed understanding of the "constant interplay between choice and constraint in the process of learning" (Zeichner & Gore, 1990, p. 26) and were able to see that SDPD could fulfil some of their needs for learning, but not all. In asking that some more directed forms of PD continue to be available, teachers were showing some awareness of their own limitations for addressing their learning needs. Bourdieu's concept of *habitus*, where learners are able to bring together "free production of all the thoughts, perceptions and actions inherent in the particular conditions of its production — and only those" (Bourdieu, 1990, p. 55) describes

how these learners saw themselves navigating the structural constraints of their environments. Acknowledging their own limitations in conceptualizing what they might learn in PD situations indicated that there was some awareness from participants of potential limitations for learning in their immediate community and that considering the ideas of others with different perspectives was also a valuable component of PD.

Changes in Teachers' Perceptions of Engagement

Engagement in this study was considered as a factor important for teacher learning, and the components of vigour, dedication and absorption were used to consider how teacher engagement was occurring and changing with respect to PD experiences during this study. As with agency, teachers were asked about their experiences with professional development, and, without directly being asked about any of these engagement components, they often offered responses that described these.

Vigour

In the pre-intervention interview data in this study, teachers expressed that in terms of effort, they often considered PD an opportunity to rest as their workloads were demanding. In the post-intervention data teachers indicated that they put more effort into PD that was self-directed since they were doing PD that they saw as meeting their needs. In terms of their energy, teachers in the pre-intervention interviews indicated that they were energized by interactions with colleagues, and had aspirations that they would like to connect more with colleagues. In the post-intervention interviews, teachers reported feeling energized by the collegial interactions that they organized and participated in. One teacher who participated in SDPD in the post-intervention interviews spoke about how this type of

PD might increase the resiliency of her school, but this component of engagement was not evident in the pre-intervention data. The vigour criterion of persistence was not expressed by the teachers in either the pre or the post-intervention data interview data, possibly due to the new nature of most SDPD projects, although the elementary teachers did show considerable persistence as I observed their work over the course of the year; on every PD day, they worked both together and separately to produce a whole-school SDPD project for English Language Arts.

Teachers also spoke of the demands of their jobs causing them to have low motivation to participate in PD activities in the pre-intervention interviews, although they indicated that choice of PD sessions was important for them to feel motivated to participate. In the post-intervention data, teachers reported that seeing good outcomes both in terms of PD resources or products and student response to what the teachers had learned or developed helped teachers stay motivated in their SDPD projects.

Dedication

Teachers indicated that they were dedicated to their profession in both the pre and the post-intervention interviews, but in terms of their PD experiences, teachers indicated that they would be more enthusiastic if sessions were more interactive. In the post-intervention data, teachers indicated that they found SDPD empowering, that they could see the benefits of their work, and that they thought that their enthusiasm for SDPD might spread to other teachers or locations. In the pre-intervention data, in terms of pride and inspiration, teachers expressed that they sometimes felt after participating in centrally directed PD experiences that they were not doing enough for their students or that the PD session had portrayed to

them unreasonable expectations for improvement. In the post-intervention data, teachers

expressed that they experienced pride and accomplishment as part of the SDPD process.

Those who organized SDPD projects for their colleagues during this study demonstrated

that they were proud both of their colleagues and their own abilities as organizers and

facilitators as they invited me to observe these projects in action on PD days, or spoke to me

of them after the PD days in conversations or post-intervention interviews.

Absorption

Teachers in the pre-intervention phase of this study expressed that they sometimes

disengaged with PD activities organized by the school district or others either via not

attending or by attending with little participation in the activity; reporting that these

activities were often not appropriate for their context or their level of experience. In the

post-intervention interviews, teachers described their SDPD projects and how these were

meeting their needs, and reported that they found this to be productive and/or satisfying.

Several teachers described that time passed quickly when doing SDPD and that they wanted

or did continue to work on their SDPD projects outside of the designated time for PD. In the

pre-intervention phase, teachers spoke of time as either too short, if the PD activity needed

follow up, or too long, if the topic was not seen as relevant or productive for the teachers

participating.

Engagement Shifts and Collegial Learning

As described in Chapter 2, teacher engagement is both a pre-condition for

(Christenson et al., 2012) and an outcome of (Sklaavik &Sklaavik, 2014) the learning

process:

Workers with high vigor invest energy and effort in their work. Dedicated workers perceive their work as significant and meaningful, and experience a sense of pride while performing work-related activities. Finally, individuals who are absorbed in their work devote cognitive resources to, and maintain concentration on, work-related tasks. (Perera, Vosicka, Granziera, & McIlveen, 2018, p. 29)

It was evident in this intervention that teachers were attempting to meet their needs with diverse strategies in their SDPD projects and that the teachers were reporting that they were more engaged with their SDPD activities than they had been in many of their previous, more directed PD experiences.

An interesting outcome of the study was that all of the SDPD projects that I observed were collegial, even though collaboration was not specifically discussed as desirable or recommended by me. Even the one SDPD project that I observed that was apparently individually planned was described by the participant as reliant on the development of digital connections to colleagues and their ability to share resources and experiences. This outcome supports prior research that has shown that collaboration and collegial relationships are important aspects of PD for teachers: "[t]eachers' perceived connectedness with colleagues may inform their sense of belonging at school, which itself has been shown to be implicated in their work satisfaction" (Perera et al., 2018, p. 39).

Activity Theory and this Study

Subject-Object-Goal Dynamic

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Dialectical interaction was described in Chapter 3 as the back and forth changes that the Subject makes upon the Object and vice versa. In this study, the Object was shown to be shifting as the study progressed. The Object (PD) was transformed as the participants (the Subject) moved from requesting more choice for PD offerings to acknowledging their control over what they learned, from wanting more freedom to taking more responsibility, and from asking for relevance to taking more ownership for PD that was relevant to their practice. The Subject (the teachers) were also evaluating their experience with SDPD and advocating for this opportunity for self-direction in PD to continue, albeit with PD alternatives that were organized by others to remain in the mix of offerings. The parameters of agency and engagement, the Goal in this activity system, were changed; shifts in teacher perceptions of their agency and engagement with respect to PD occurred and teachers described themselves becoming more autonomous as the study progressed.

The activity system had changed due to the change in the rules for PD. This rule change affected the Subject (the teachers), and it also had linked effects on the teachers' communities, and on the hierarchy (the administrative levels of authority). While most tools used for PD remained unchanged, the one tool that was indicated as important to this rule change and the subsequent effects was the PGP. One principal noted that PGPs from SDPD teachers were "more intentional" (17) and several teachers suggested that the PGP was a tool that could be used to more clearly support and evaluate SDPD in the future.

In this study, as was discussed in Chapter 3, the Subject and Object are dialectically interacting as the Subject (the teachers) change the Object (PD), by shifting toward more self-direction and autonomy in this activity system. This change in the activity also allowed

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the Subject to move toward the Goal — teacher perceptions of engagement and agency. In Figure 10, the altered relationships between the Activity Theory constructs are shown diagrammatically.

Tools: PGPs, Curricula, computers, products of PD work, etc.

Object: Self-directed PD Projects

Subject: Teachers

Goal:

Changes in teachers' perception of their agency and engagement

Rules: PD 'Days' (protocols), school and school system norms and

Community: Teacher groups

Division of Labour:

Teachers

Admin   Students
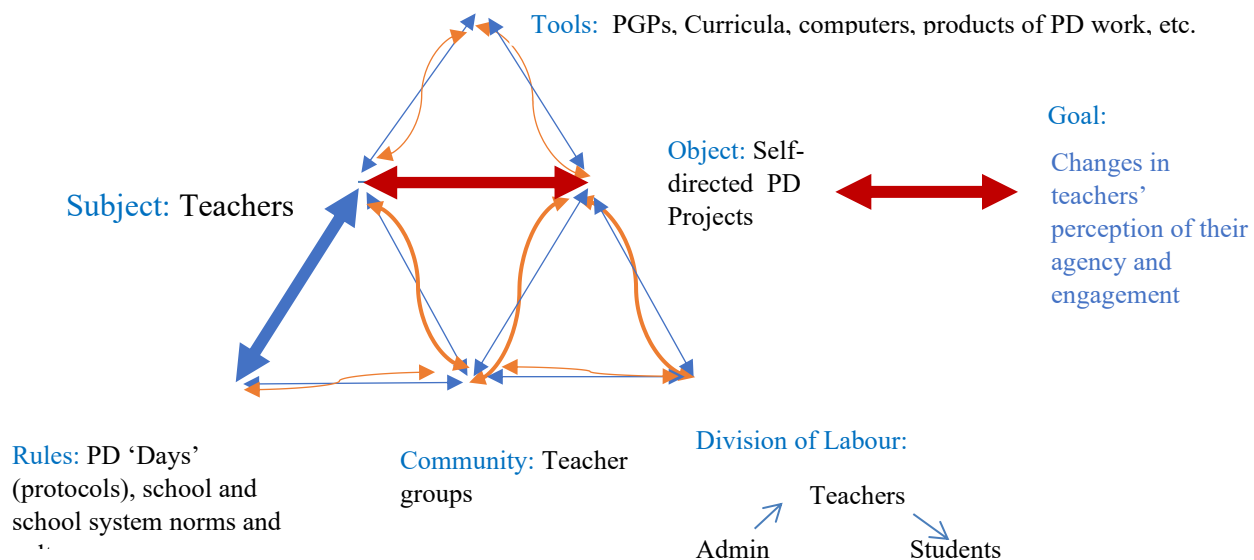
Figure 10: Dialectical Activity in this School System

The change in the rules with regard to PD in this activity system (blue bold double-ended arrow) caused shifts in the web-like interconnections in the entire activity system. The most significant change in the system occurred as the Subject (the teachers) progressed toward the Object (SDPD) and this Object acted back upon the teachers, subsequently allowing progression of the Subject toward the Goal (teachers' perceptions of their agency and engagement). But in this interconnected system, this rule change also caused changes in the Subject's interaction with the community, with the hierarchy and with the tools in this activity system as described in Chapter 5 (orange wavy arrows). As noted in Chapter 3, Activity Theory allows for the interactions between all parts of the activity system to be

conceptualized and modeled, without becoming overwhelmed by the complexity of these interactions and relationships.

This Activity Theory diagram (Figure 10) differs from ones typically drawn for Activity Theory (see Chapter 3). The double-ended arrow between the Goal and the Object is typically shown as single-ended and pointed toward the Goal. This change in the representation illustrates that in this study, the Goal (shifts in teacher perceptions of agency and engagement) can and did act back upon the Object and the Subject to allow for a possible further increase in dialectical interaction. This could be termed a 'runaway object' in Activity Theory terms as was outlined in Chapter 3. In this study, the teachers did form loosely connected smaller groups that had the potential to lead to a catalytic effect and a larger, systemic type of change initiated from the lower ends of the hierarchy. This type of bottom up push for change from small but powerful loosely interconnected networks was compared to a mycorrhiza fungal network in Chapter 3. Teachers in this study were aware of the power dynamics and how their relationships with administrators were altered as they became more autonomous in their collective groups during this study. Although these small groups of teachers were not showing evidence that they are using the social power that might arise from working in these collectives to push for larger-scale systemic change, there is some evidence that this type of change is possible considering the results of this study. These small SDPD groups, each autonomously working toward their needs, and shifting in membership as diverse needs arose, could be considered to be analogous to the first spores germinating into tiny roots (properly called hyphae) of a growing fungal mass, establishing the mycorrhiza-like network that might provide the groundwork for an educational ecosystem that is more productive and stable as it is able to adapt to changing environmental

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conditions. While these groups in only three schools in this school district were yet to become interconnected or established enough to the point of being considered a holistic network, further encouragement and development of a SDPD programme in this school district or others like it might allow for this.

Contradictions in this Study

Although the intervention in this study did lead to alterations in the activity system, it is the tensions or contradictions in activity systems that illuminate the areas that are productive for maintaining, increasing, and/or observing change in systems like this one (as was described in Chapter 3). In Chapter 5, as the data were analysed, when some tensions or conflicts of interest were noted that were associated with the intervention in this study these could be identified as contradictions. In this section, these contradictions are discussed with attention to how these could be resolved or ameliorated in this activity system in order to create an improved PD system for all participants. Similar contradictions might be expected in school systems whose PD organization parallels this one, although contradictions in each system would be expected to vary with the system and its own unique interactions and composition.

One of the contradictions identified in this activity system during this SDPD intervention was that principals saw value in increasing teacher autonomy with respect to PD but were concerned about this decreasing *their* agency with respect to their ability to lead the school. This has been called the "fragmentation" of principal agency:

> …with schools becoming more open to the community, with the interests of many
> stakeholders being both recognized and taken into consideration, the identity of the

principal within the role is uncertain, fragmented. It has become increasingly difficult

for the principal to assume agency - enabled will - with the position. (Armstrong,

2004, p. 4)

Agency though, is not simply the ability of the principal to exert their will in their

setting. The agential principal would demonstrate the agency components of self-efficacy,

self-reflection, reflexivity and intentionality and act in ways that consider their structural

constraints and leeways, just as the agential teacher would. Principals might consider the

support of teacher autonomy, and the possible accompanying teacher agency and

engagement, as part of their role and identity as educational leaders as it has been suggested

that principals' "ability to exercise one's agency within an expanded realm of acceptability

allows role and identity to be flexible when new and better ways of administering surface"

(Armstrong, 2004, p. 15).

As a practical response to this concern in this context, principals might be more

willing to share their authority with regard to PD if they were more aware of how SDPD

encourages shifts in teachers' perceptions of their agency and engagement, and how these

shifts often include increased pride and inspiration in their learning contexts, and more trust

from teachers toward administrators, including principals. If principals were more

knowledgeable about SDPD and its benefits and about what types of projects can and have

been undertaken, and there are allowances made for principals to be able to have time with

their teachers to work with them toward provincial, district and school goals (and time to

work on their own professional goals) if these are not being necessarily met via SDPD, this

may help principals to support SDPD in principle and in action.

Another contradiction emerged in this activity system as administrators (and some teachers) expressed concerns that teachers, without centrally directed PD, will not do what they said they would during designated PD times or in PGPs, or would not use time appropriately or efficiently. Here the term 'accountability' emerges as teachers are, as previously mentioned in Chapter 2, often considered public servants. Although it is important that teachers do use their time productively, trust was found to be essential to productive relationships in this study, and too much emphasis on products over process may act to restrict what teachers see as acceptable types of SDPD.

Biesta (2004) warned that a culture of accountability in schools may lead to just such a consideration of students as customers and teachers as vendors with the resulting lack of meaningful relationships at all levels in schools. This type of concentration on accountability "lacks proper (democratic) discussion regarding which standards or 'outcomes' are most desirable" (p. 238) as discussed in Chapter 2. If the outcomes that schools and PD programmes aspire to are instrumental, then teacher PD will reflect this focus, but a more holistic consideration of teachers as professionals requires that teachers are able to consider their own roles and purposes in their school systems and their responsibilities that follow from these. This deeper consideration may eventually and admittedly optimistically allow for the emergence of what Biesta (2004) called the "ethical demand" where: "relations between parents/students and educators/ institutions to develop into mutual, reciprocal, and democratic relationships, relationships that are based on a shared concern for the common educational good (or goods) — relationships, in other words, characterized by responsibility" (p. 249).

As a possible practical action in this context to address concerns about accountability of teachers doing SDPD, PGPs could be used to plan and evaluate SDPD projects more explicitly. These are already required of teachers and so would not constitute extra work. Teachers could use trusted peers or administrators to self-evaluate their progress and plan the next year's goals. This was suggested by several of the teacher participants in the interviews as an acceptable possibility for both planning and evaluating the SDPD process.

Another contradiction arose in this study with regard to PD for school leaders. Principals expressed that they were not unhappy to be released from the task of planning PD for their school staff and that one principal saw this as an opportunity that might allow him to fulfill his own PD needs during time that he would normally be organizing and implementing school-based PD. This highlights that principals and administrators are also professionals and thus should also have designated PD time, as they are learners as are teachers, and having more teachers (but not all) do SDPD may not allow for this. This contradiction requires some deeper considerations of principal and administrator time and how they are able to meet their own learning needs and those of the school district or administrative jurisdiction that they serve. Some Canadian studies have found congruence with what was found in this study with respect to principals' PD opportunities. For example, one study in Alberta inquiring into PD opportunities for principals found that:

> [a] central theme emerging through this research is the importance of [principals] being able to spend time networking with other principal colleagues to share ideas, re-affirm existing knowledge and practices, and explore new ideas for better meeting the needs of learners. (Wright & DaCosta, 2016, p. 40.)

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In this study, principals expressed frustration with PD opportunities being offered outside of regular work hours, citing time demands of their complex work, similar to the findings for teachers in this dissertation (Wright & DaCosta, 2016). However, without requirements of classroom coverage by substitute teachers for principal or administrator absence from their schools, this requirement might be met with designated PD time (and encouragement for self-direction) for those higher in the hierarchy as well, modeling the type of learning that they are encouraging from their teachers.

Another contradiction expressed by principals was that, as educational leaders, they were supportive of innovative teacher projects for SDPD but were also concerned that teachers may interpret SDPD in ways that are not typically considered to be within the commonly accepted parameters of teacher PD. Recent surveys of PD in Canada have pointed to some common characteristics of what is considered to be quality PD, but it is apparent from these studies that "who decides the necessary content and methods for teachers' professional learning is a point of contention" (Campbell, 2017, p. 13).

This lack of clarity as to what is acceptable for PD could be alleviated by having the school district clearly state what the administration considers to be acceptable vs. unacceptable activities for PD (e.g. grading papers collaboratively is PD, individually is not) and implement a non-threatening way for SDPD participants to ask questions if teachers are still unsure. Administrators could also learn more about the ways in which teachers learn and the value of process over product in SDPD and this may increase the scope of what they would consider as acceptable for PD. Those with authority over PD then might consider refusing a teacher's request for SDPD only when it cannot be justified by the participant(s).

It has been shown that "teachers move toward more robust forms of teacher community if and when they find ways to air and explore disagreement, acknowledge their differences, and tolerate conflict" (Little, 2012), and so some forms of tension in and with respect to what and how teachers learn can and should be tolerated, even encouraged, as teachers explore areas of concern for them and their practice. The recommendation here would be that teachers be encouraged to challenge the system to accept 'out of the box' ideas for PD and that when and if teachers are able to justify their SDPD ideas, administrators make efforts to accept these ideas as legitimate. Research surrounding the results of such encouragement would be an interesting extension of this SDPD study.

The constraint of limited resources with respect to PD was the next contradiction that emerged from the hierarchy results. Although SDPD increases freedom to collaborate with others, it also increases potential for logistical constraints on PD like not enough time for SDPD, finding contacts, or funding. A recent study has shown that there is considerable discrepancy between provinces, school divisions and even schools as to availability of PD opportunities and allocation of resources in Canada (Faubert, Campbell & Osmond-Johnson, 2018). In terms of what research is done concerning PD and what is offered and funded with respect to teacher opportunities for PD, it has been stated by some prominent Canadian researchers in this field that "we must be vigilant in Canada to support and advocate for a rich diversity of opportunities, voices, experiences, and contributions", including teacher SDPD (Faubert et al., 2018, p. 21.).

Here again, having all schools in the district with SDPD time on the same designated days and times would aid in teachers being able to find contacts and eliminate some

scheduling conflicts. Electronic bulletin boards might also help (but not eliminate) scheduling conflicts. Funding for keynotes and other types of directed PD expenses could be moved toward SDPD, alleviating some financial concerns, but a more robust consideration of the goals of teacher PD, including the consideration of teacher agency and engagement might aid in the support of SDPD as part of the normal operation of a PD programme.

One contradiction apparent to me as both a member of this school district and a researcher in this interventional study was the apparent disconnect between what teachers were reporting with respect to their PD experiences and how administrators viewed teacher satisfaction with respect to PD as the study began. School district documents described high teacher satisfaction with district PD at the time of this study ([School Division] Board Meeting Minutes December 4, 2014). In meetings with upper administrators and the PD committee that I was a member of during the time of this study there were few critical conversations as to how PD was serving the needs of teachers. But teachers in the pre-intervention phase of this study described many situations of low satisfaction, and high degrees of frustration with little control or input into PD. In some interviews, it was clear that fear and intimidation with respect to participating in PD that was not sanctioned by administration as this study began were preventing teachers from taking agential action in their PD experiences. The school district administered surveys referred to by the school board in its documents may not have explored the more qualitative concerns that teachers had with respect to their learning opportunities in the way that confidential interviews can elucidate. Qualitative studies often reveal details that are "educative" (Somekh & Lewin, 2006, p. 8); that can feed back to decision-makers and allow for evidence-informed decisions. Using thick and rich descriptions (Guba & Lincoln, 1989), qualitative findings

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can reveal more than generalities about the state of a system or program. In this study, specific tensions about teachers' perceptions of the quality of PD have been made visible, the importance of teacher autonomy has emerged and the consideration of teacher agency and engagement have been shown to be important indicators of the quality of a PD programme and these can subsequently be addressed specifically by decision-makers in this system.

Implementing dedicated SDPD time for teachers may alleviate teacher frustrations with lack of control or input and clear communication supporting teacher-led PD may decrease fear in this particular context. Here messaging by the administration, including superintendents, directors and principals would be important. Videos and other messaging from the central administration was present to some degree in this study as was principal support in the three study schools as they introduced me at their staff meetings and attended the information meetings. This type of support may have helped to decrease teacher fear of reprimand for doing PD differently and enabled the participants in this study to feel secure enough to try SDPD. Another way to support SDPD would be to showcase some SDPD projects in videos or other communication channels (e.g. newsletters, etc.) to help teachers see that the school district supports these ideas. This was proposed at one PD committee meeting, but was never followed up on in the study year (See poster generated at this PD committee meeting: Appendix 4).

Another contradiction that arose in the results was that teachers reported that they wanted to handle their own PD decisions, but high workloads could make it difficult for them to plan their own PD. SDPD was sometimes seen as more work by teachers, although

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many teachers who did SDPD also expressed appreciation of the chance to do this work.

This is a tension that has been raised with respect to all types of teacher PD in recent

Canadian research: "creating time for professional development needs to include attention to

what other workload demands are going to be reduced or removed" (Faubert et al., 2018, p.

18).

For this contradiction, messaging about SDPD could make it more apparent to

teachers that the planning and evaluation phases of SDPD projects could be included as part

of the legitimate PD activity, and this might allow teachers to use their PD time

collaboratively to design and evaluate projects that fit their needs without extra time needed.

Teachers also expressed concerns that the more centrally directed options for PD

might disappear as SDPD became more prevalent. Teachers valued control over PD,

including increased choice, but having only SDPD as a PD option was not always expressed

as ideal by teachers. Teachers did indicate that any coerced or forced PD activities may be

met with teacher resistance, so increasing teacher autonomy would not include forcing any

model of PD upon teachers, and that would include SDPD. Here, diversity of possible

experiences is important, as has been found in some recent Canadian PD research:

> [E]ducators require a repertoire of professional knowledge, skills, and practices to be
>
> developed through a wide range of differentiated professional learning experiences
>
> throughout their careers. There is not, nor should there be, a "one size fits all"
>
> approach to education in Canada. This variation is appropriate, professional,
>
> beneficial, and positive. (Faubert et al., 2018, p. 21)

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As mentioned earlier in this section, although SDPD increases freedom to collaborate with others, it also increases potential for logistical constraints on PD (not enough time for SDPD, finding contacts, funding). As part of the solution to these problems, electronic bulletin boards and lists of email addresses for subject area teachers should be readily available to all staff. This was a problem that I did endeavour to solve for one particular teacher who asked for a list of teachers in his subject area. I was surprised at the number of layers of permissions that I had to navigate in order to supply this teacher with this list. During the study year, the Director of Learning Supports began an electronic bulletin board for sharing of SDPD project ideas and other PD opportunities but it was not widely distributed or accepted as the study ended. This was, however, a promising start to the alleviation of this logistical problem of finding contacts. Funding was not cited as a significant problem in this stage of SDPD adoption, but it was cited as a potential limiting factor by both principals and teachers. Notwithstanding some diversion of funds from more directed PD offerings like keynotes, present PD funding models would benefit from some additional supportive funding for SDPD, especially in the form of small grants that could be applied for by teachers. Grants as a mechanism for SDPD encouragement might also indicate to all teachers in the system that the school district is in support of SDPD and act also as a system of reward to encourage engaged and agential teachers that self-direct their PD.

As mentioned in the results chapter, the school district documents indicated and administrators acknowledged in their annual report for the study year that teacher collaboration in learning is important, but teachers reported little collaboration as the study began (both in this survey and in the pre-intervention interview results). This is congruent

with recent findings from across Alberta, and Canada: "For example, despite the emphasis

on school-based professional learning communities, 20% of teachers in Alberta … reported

that there was no official time for professional learning communities during their school day

(Campbell, 2017, p. 14.), despite collaboration being cited as valued by teachers across the

Canadian contexts studied. Implementing dedicated SDPD time for teachers may alleviate

frustrations with lack collaboration and control or input with respect to PD and clear

communication supporting teacher-led PD may decrease fear. However, as was seen in the

results, teacher autonomy is important in decision-making, as this was a key complaint from

teachers about more directed PD. Thus, no SDPD should be imposed on teachers, and the

format or evaluation should also not be tightly regulated. For example, it would not be

desirable to have only PLC's allowed, or a to require a presentation or report of participants.

Both of these restrictions were proposed by the PD committee at various times during this

study.

Another contradiction that teachers expressed was that constraints to PD, like time,

money, and isolation continue to limit teacher learning. This has also been supported by

recent pan-Canadian and Albertan studies of teacher PD (Campbell, 2017; Campbell et al.,

2017; Faubert et al., 2018; Osmond-Johnson et al., 2018). Teachers were more positive in

their post-intervention expressions of being able to overcome some of these constraints,

especially isolation. Even under the auspices of this study, some participants found that

other events or meetings had been scheduled when they had planned to so SDPD, but there

were more reports from participating teachers that they were able to gather together, and

were able to find others that had similar interests to theirs, some overcoming considerable

obstacles to do this (e.g. recruiting teachers from other school districts, making sure teachers

participating in SDPD signed consent forms, asking me to find the email addresses of

subject area teachers). A district electronic bulletin board, as mentioned above, in

conjunction with more readily available contact lists for staff, could also help teachers to

find others with similar interests. Time for PD is determined by central administrative staff,

and, after having experience on this district's school calendar committee I understand the

barriers to accessing more time for teachers. However, working PD time into teachers' days

and schools (embedded PD) has shown to be possible and effective for teacher learning

(Vega, 2013). School districts may need to seek out creative solutions to the limitations of

time and funding for teacher PD.[26]

As previously mentioned in Chapter 3, contradictions are places where tensions exist

in an activity system, but are also areas where productive change can be enabled when these

contradictions are acknowledged and efforts are made to alleviate them. In Table 25 these

contradictions and my suggestions to mitigate these in this activity system are summarized.

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[26] Recently two developments have increased PD resources for Alberta teachers. One large Alberta school board has recently increased their PD days to 5 (from 3) for budgetary reasons (https://globalnews.ca/news/6502158/edmonton-public-schools-pd-days-off/) and one other large Alberta school board has recently negotiated a tentative agreement that would see funding for PD increase substantially (https://edmontonjournal.com/news/local-news/edmonton-catholic-teachers-reach-deal-with-school-board).

Table 25: Contradictions and Proposed Actions

Contradiction	Proposed Action
Principals and administrators saw value in increasing teacher autonomy with respect to PD but were concerned about losing their own autonomy to direct school PD.	Principals and administrators designate time for SDPD and time used for school or district business, making it clear to all that both are valuable.
Administrators expressed concerns that teachers, without directed PD, will not do what they said they would (in PGPs) or would not use time appropriately or efficiently.	PGPs should be used to plan and evaluate SDPD projects. Teachers should use trusted peers or administrators to self-evaluate their progress and plan the next year's goals
Principals acknowledge that SDPD may enable them to do their own PD but may not able to do this in a SDPD environment in schools.	Principal and administrators should also have designated PD time, both SDPD and directed PD.
Principals are supportive of innovative teacher projects for SDPD but are also concerned that teachers may interpret SDPD in ways that they do not consider to be within the accepted parameters of teacher PD.	The school district should clearly state what the administration considers acceptable vs. unacceptable actions for PD and implement a non-threatening way to ask questions if teachers are still unsure. Administrators, if more aware of the rationale for SDPD, may increase the scope of what they would accept for SDPD.
Although teachers value control over PD, including increased choice, having exclusively SDPD was not desired. PD that is not relevant to teacher practice may encounter teacher resistance.	Having clearly established time set aside for both centrally directed and self-directed PD will help teachers to discover new ideas from offerings by others and teachers would also be able to work on projects that they design to fit their needs.
Although SDPD increases freedom to collaborate with others, it also increases potential for logistical constraints on PD (not enough time for SDPD, finding contacts, funding).	Having all schools in the district with SDPD time on the same days and times will aid in teachers being able to find contacts and mutual meeting times. Electronic bulletin boards should help (but not eliminate) scheduling conflicts. Funding for keynotes and other centrally directed PD expenses could be moved to support SDPD.

Teacher Professionalism: Autonomy, Agency and Engagement, and the Ethical Demand

Recently it has been shown that teachers in Canada have seen: "their autonomy decreasing over the years with the increase of external control and monitoring of their work" (Paradis, Lutovac, Jokikokko, & Kaasila, 2019, p. 396), but it has also been found that teacher autonomy forms the basis for "teachers' feelings of professionalism and competency" (Paradis et al., 2019, p. 395). This link between teacher autonomy and their consideration of their professionalism was evident as part of teachers' considerations for why SDPD was important in this study. Autonomy for teachers is not the same as individuality, as teacher autonomy is recognized to be relational, and "relies on the webs of social and institutional relationships and structures" (Paradis et al., 2019, p. 395) that teachers work in and with. With this type of relational autonomy, trust between teachers and between teachers and administrators, especially principals, has been found to be important (Paradis et al., 2019), and trust is considered to also include all educational stakeholders' (i.e. parents, students, administrators, teachers and the general public) "confidence in teachers' qualifications and competencies, and positive perceptions of teacher status, professionalism and expertise" (Paradis et al., 2019, p. 398). Autonomy in teacher work situations has been shown to increase job commitment, satisfaction, efficiency and retention of teachers (Paradis et al., 2019).

Autonomy is not synonymous with agency. As described earlier in this thesis (Chapter 1), autonomy is a characteristic usually ascribed to professions and includes decision-making power in "initiating, sustaining, and providing stewardship of PD" (Slavit & McDuffie, 2013, p. 96). Agency is often enabled by autonomy; teachers may have agency characteristics and/or aspirations (self-efficacy, self-reflection, reflexivity, intentionality), but may not be given

sufficient freedom from administrative control to achieve their learning needs in that context. Agency arises as the actor(s) interact with their environments.

Engagement also may arise as a result of autonomy. Vigour, dedication, and intentionality were more apparent in teachers' descriptions of their PD activities as they planned and carried out SDPD projects in this study. This finding is supported by recent research that found that: "both teacher autonomy and self-efficacy were independent predictors of engagement, job satisfaction, and emotional exhaustion" (Sklaavik & Sklaavik, 2014, p. 68).

Agency and engagement have been shown in this study to emerge from individuals acting in a collective, social milieu with some autonomy. When this occurs, learning may be both unpredictable and responsive, according to leading Activity Theory researchers (Engeström, 2006; Yamazumi, 2009). Here, "[d]istributed agency [is] located in knotworking-type formations, which can solve problems and make decisions in situations where the combinations of people and the contents of tasks change constantly" (Yamazumi, 2009, p. 215). That this type of change might be desirable in a school system like this one is a premise based upon how and if we view teachers as professionals. If we see teachers as those who hold some educational authority and who should have some autonomy to make educational decisions in line with their value systems, then this premise supports the argument that this type of professional development should be promoted for teachers.

Underlying this argument (but not evaluated by this study) is a consideration that the values that school systems, governments and teachers hold are not necessarily congruent or even explicitly or consistently stated. If questions are asked that delve into these grounds for decisions about who should decide what and how teachers learn, we begin to understand how and why hierarchical systems are important gatekeepers to teacher PD decisions, and how and why there

might be some contradictions that emerge as a school system such as this one attempts to change some of the rules or customs surrounding teacher learning and PD. In this study, only one participant described ethical considerations for PD as important. This principal did see the connections between the ethical demand of teachers' practice and PD, but this was not deeply explored by him (or probed by me in the interview). There was little evidence at this point in this activity system that teachers were explicitly considering ethical concerns as part of their rationale for learning in PD situations.

Do teachers use their underlying values (either explicitly or implicitly) to make professional decisions? Or, are teachers "servants of the state" (Rigas & Kuchapski, 2018) and thus vehicles through which other entities (school administrators or governments for example) transmit their values and thus their agendas for education? If the former is true, and I have made the case elsewhere in this thesis that it should be, then this necessarily leads to the assertion that teacher learning is relevant to teachers when teachers take control of their professional development experiences in line with their ethically determined needs, that this leads to teachers perceiving this activity as agential and engaging, and that this learning will reflect their values with respect to education. Further research that explores this aspect of teacher PD and ethical decision-making would be an interesting extension of this research.

Seeing teacher values as important as part of their ability to autonomously respond to the needs of their students and their learning context is important to this argument but in social systems autonomous individual action is limited by some social constraints. These constraints may limit teacher learning in some cases, but may also prevent autonomous teacher action from becoming destructive and/or so outside of the norms and values of the surrounding society that the action is deemed immoral, illegal or otherwise not socially productive. This is a difficult

distinction, since disruptions of systems can also be productive when contradictions lead to new and better ways for the system to function as a whole. How much autonomy should teachers have? This is a question that has no facile answers, but is a tension that has historically existed in many social systems (Parsons, 1962). It is beyond the scope of this thesis to consider how much teacher autonomy in school systems is productive, but the contradictions experienced by the participants in this study and my process of negotiating the permissions needed to have this study occur involved these tensions.

Agency and Engagement as Social Power

School systems have been discussed as models of social organizations where power structures are both obvious and hidden. Foucault described educational institutions as particularly interesting for their "coded signs of obedience, differentiation marks of the 'value' of each person and of the levels of knowledge and by the means of a whole series of power processes (enclosure, surveillance, reward and punishment, the pyramidal hierarchy)" (1982, p. 787). But Foucault also saw that wherever there are systems of power, there are necessarily the possibility of "free subjects" as power disappears when freedom does. "Institutionalization", for Foucault, is a form of power that appears as an "apparatus closed in upon itself, with its specific *loci*, its own regulations, its hierarchical structures which are carefully defined … bringing into being of general surveillance, the principle of regulation" (1982, p. 792). According to Foucault, when power relations become more under state control, more "elaborated, rationalized, and centralized" (p. 793), they become difficult to see from within and thus more difficult to change. He called for a "relationship of confrontation" where the "obstinacy" of freedom and its accompanying "insubordination" allow for the "free play of antagonistic reactions" (p. 794).

Foucault did not suggest specific solutions, but suggests that we might begin with an interrogation of the structural forces of power that are seldom questioned.

Maxine Greene (1986) suggests that this type of awareness may:

… awaken us to reflectiveness, to a recovery of lost landscapes and lost spontaneities. Against such a background, educators might now and then be moved to go in search of a critical pedagogy of significance for themselves … How can we awaken others to possibility and the need for action in the name of possibility? How can we communicate the importance of opening spaces in the imagination where persons can reach beyond where they are? (p. 430)

Greene's plea for spaces in schools where "attention was paid to the posing of worthwhile problems emerging out of the tensions and uncertainties of everyday life" (p. 435) was made almost 35 years ago. Greene saw that the "separating off of moral considerations long viewed as intrinsic to civilized life" (p. 437) was contributing to "dark times" where "there is little sense of agency, even among the brightly successful, there is little capacity to look at things as if they could be otherwise" (p. 438). Her plea for "intentionally organized collaborative action to repair what is known to be missing, or known to be wrong" using "passages of argument and inquiry, going on [as] … an unrehearsed intellectual adventure" (p. 439) have been, at least in school systems that ascribe to hierarchical codes similar to the one in this study, mostly ignored. It is my argument in this thesis that this inertia lies at the heart of the inability of many schools and school systems to consider their own problems and see ways to address them, and this study has aimed to carve out some small space for these types of considerations.

Contributions of the Study to the Field

Activity Theory

This study used Activity Theory as a lens, and thus paid attention to the theory's emphasis on regarding the cultural and historical factors that shape the activities studied as important. This study began with an historical inquiry into the evolution of the concept of the teacher as a professional and how the concept of teacher development has evolved. The historical arrangement of the literature review also highlighted the progression of teacher PD ideas with respect to self-direction over the last several decades. Some of the historical developments in Activity Theory were described chronologically in Chapter 3. The methods used and how they were analysed were also described chronologically in Chapter 4. The arrangement of the results in the order in which they were obtained (pre-intervention negotiations with administrators, pre-intervention interviews, intervention naturalistic observation, post-intervention interviews) also allowed for an account of the study that highlighted change over time, and paid attention to power dynamics and cultural norms that were being challenged as they occurred. Studies that recount teacher PD in a historical and cultural context as this one does are not common in the literature at this time, although I have outlined previously that some researchers have called for more attention to the history of the research base on teacher PD (Manathunga, 2011) and Activity Theorists have also asked researchers to pay attention to the historicity that permeates educational contexts being studied (Lektorsky, 2009).

In the first part of this chapter, I diagrammed this activity system's changes, and used a double-ended arrow to connect the Object and the Goal. As previously mentioned, this is not usual for an Activity Theory diagram of a research context. However, in this study, it was clear

that teachers who had shifted in their perceptions of their agency and engagement had acted back

upon their PD system, changing their ways of learning and advocating for more control over PD

to continue. This action also led to shifts in the teachers' perceptions of themselves, with the

Subject (the teachers) reporting, among other changes, more confidence in their ability to meet

their learning needs. This double-ended interaction between the Goal and the Object connects

this diagram to the concept of the runaway object (Engeström, 2006) that is described as being

catalytic in enacting holistic change, much as a mycorrhizal fungus invades and supports change

in a forest community. This connection between agency and engagement as the Goal, the

interaction of the Goal and the Object as illustrative of a runaway object, and the connection of

this runaway object to the mycorrhizal network (Engeström, 2006) has been lucidly described

but not typically clearly linked in past Activity Theory research. More work to clearly

understand the interactions and relationships between these constructs would help future Activity

Theory researchers to connect these powerful metaphors in their research environments.

A Different Way to Look at Professional Development

As outlined in Chapter 2, PD has typically not been considered in ways that reflect the

deeper goals and ethical considerations of education. PD evaluations that consider student test

scores, or measure how much of the provided instruction that teachers learned or used do not

allow for the space for teachers to consider their own, more holistic, purposes for their actions in

classrooms. By assessing PD in terms of instrumental measures, the process becomes one of

transmission of others' ideas, and while this is important to consider, without allowing teachers

some freedom to ask themselves about what they need and want to learn, research concerning PD

'effectiveness' will not move the field toward more responsive learning conditions for teachers.

As such, the consideration of both agency and engagement as possible indicators for PD quality is a novel approach to the evaluation of a PD programme.

In this study, agency and engagement had to be operationalized into a framework that enabled these parameters to be recognized when they occurred in this study. In order to do this, the parameter of agency had to be extensively surveyed in the literature, and a group of components and criteria that would enable the recognition of agency when it occurred in this system needed to be developed. The organizing framework of components and criteria in this dissertation is original in this study, albeit derived from recent literature, and might be useful in other studies of agency in varied contexts. The engagement parameter had been previously elucidated in the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006), but in this study the survey instrument was converted to components and criteria similar to those for agency in order for them to be recognized in the qualitative interview and observation data from this study. This framework may also be useful for those doing research into engagement who are unable or choose not to deliver the UWES survey as published.

The use of teacher voice was crucial in this research study, as I was both the designer and the evaluator of this interventional study, and I was also a member of the community in which it occurred. Due to the potential for implicit bias, self-reflection was always imperative, and in using teachers' words directly, I was able to communicate the findings of this study in ways that, I am confident, honored their intentions and experiences.

This study involves a single school system and within this, a small sample of self-selecting participants from three schools. This is a study with clear boundaries and hierarchical structures. The methodology of this study, an interventional naturalistic inquiry, is one that is congruent with the epistemological stance of social constructivism, the methods used (several

methods, with an emphasis on thick and rich qualitative data) and also congruent with the

theoretical perspective of Activity Theory. As such, it is an answer to the call for this type of

research by veteran Activity Theory scholars (Engeström, 2018; Langemeyer & Nissen, in

Somekh & Lewin, 2005).

Suggestions for Further Study

As a possible model for future work in professional development in Alberta, this study's

dissemination may stimulate further interest and research into SDPD by those outside of my

immediate academic community (school districts, the Alberta Teachers' Association, Alberta

Education), and it is my intention to share the findings of this study as broadly as possible once

complete via academic conferences, published papers, meetings with potential PD providers and

organizers, and any one else who is interested in these findings.

In this particular activity system, as mentioned in Chapters 5 and 6, new contradictions

have emerged as former ones have become less problematic. For example, issues of scheduling

or logistics, of gatekeeper control and of accountability have emerged as this activity system

loosens its former rules surrounding PD. Following this activity system into the future to

determine if the SDPD programme continues or not, and if it does continue, how the system

deals with these new contradictions would be the logical follow-up to study in this system.

Yrgo Engeström, a pioneer and active researcher in Activity Theory, has proposed a new,

third generation Activity Theory (Engeström, 2000) wherein activity systems are seen as

interacting with other activity systems in constant (dialectic) mediation and discourse. Related

activity systems would be studied together, especially considering larger social trends (and

"runaway objects") that may cause significant shifts at the societal level. In the context of this

study, this could involve the many activity systems surrounding PD in Alberta or even Canada, and how these interact with each other and with the larger society as a whole (Engeström, in Sannino et al., 2009, p. 309). This would be congruent with my own commitment to consider the forces at work that shape educational systems, and to look toward the types of expansive learning that may be able produce large-scale social change and more adaptive educational environments for students.

As mentioned in the Chapter 2, although studies surrounding teacher autonomy and self-direction in PD are becoming more common, interventional studies that compare the same group of teachers before and after a SDPD programme are still missing from the literature, as are studies of SDPD that use several methods of data collection. Studies that evaluate teacher agency and engagement as parameters evaluative of PD programmes are also absent from the literature, although recently Activity Theory scholars have published more prolifically on agency as an important part of the activity system (Engeström, 2014; Haapasaari, Engeström, & Kerosuo, 2016). More studies similar in aims to this one, to confirm the transferability of this study, would be beneficial, especially ones that include less self-selecting and larger samples. Having an informed but more detached researcher might also yield some insights not visible to an insider. Finally, tying self-direction in teacher learning to student outcomes or even to changes in teacher pedagogical practices would be an interesting extension to this research, as this is arguably the aim of all teacher learning — to improve the educational system for students, and there is very little research that evaluates student outcomes of PD without referring to student achievement on standardized tests.

Endnote: It has been a privilege to work in this environment

This study and the ideas that have emerged may allow for teachers, administrators and other educational leaders to feel empowered to work together to transform systems with the help of agential and engaged participants like those that have been profiled in this study. Encountering these teachers and administrators, who are so inspired by their vocations and perceptive in their observations, and also motivated to work within communities to improve and reflect upon their practice, has given me great confidence that moving toward more responsive schools and school systems is both possible and probable when the learning space is more open for educators. Teachers can and should be at the helm of their learning experiences, as they model and encourage self-directed learning for their colleagues and for their students.

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Appendices

Appendix 1: Sample School Calendar
(www.XXX.ca)

Legend:
- ○ First Instructional Day (Semester 1 & 2)
- ☐ Schools Closed to Students for SBPL/PD Days (Operational Days)
- ■ Statutory Holidays
- ▒ Schools Closed to Students and Staff

Important Dates

Date	Event
Aug 4	Heritage Day - Statutory Holiday (Stat)
Aug 27 - 28	School Based Professional Learning (SBPL) Days
Aug 29	School Operational Day
Sept 1	Labour Day - Stat
Sept 2	Classes Begin
Oct 10	Division PD Day
Oct 13	Thanksgiving Day - Stat
Nov 10	Day-in-Lieu for Parent Teacher Interviews
Nov 11	Remembrance Day - Stat
Nov 12 - 14	Fall Break
Dec 22	Winter Break Begins
Dec 24 - 26	Floater, Christmas and Boxing Days - Holidays
Jan 1	New Year's Day - Stat
Jan 5	Classes Resume
Jan 13 - 15	Diploma Exams scheduled
Jan 20 - 29	PAT/Diploma Exams scheduled
Jan 30	SBPL Day
Feb 2	Second Semester Begins
Feb 5 - 6	North Central Teachers' Convention
Feb 16	Family Day - Stat
Feb 27	School Closure Day
Mar 6	Division PD Day
Mar 27	Day-in-Lieu for Parent Teacher Interviews
Mar 30 - Apr 2	Spring Break
Apr 3	Good Friday - Stat
Apr 6	Easter Monday - Holiday
Apr 7	Classes Resume
May 1	School Closure Day
May 11 & 13	PAT Exams scheduled
May 15	School Closure Day
May 18	Victoria Day - Stat
Jun 12 - 26	PAT/Diploma Exams scheduled
Jun 21	Aboriginal Day
Jun 26	Last Instructional Day for Students
Jun 29	Last Operational Day for Teaching Staff
Jul 1	Canada Day - Stat

August 2014

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September 2014

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October 2014

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November 2014

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December 2014

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

January 2015

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2015

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March 2015

S	M	T	W	T	F	S
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2015

S	M	T	W	T	F	S
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19	20	21	22	23	24	25
26	27	28	29	30		

May 2015

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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June 2015

S	M	T	W	T	F	S
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July 2015

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

-more-

Appendix 2: Some Professional Development Experiences

Scenario 1:

A science teacher in Alberta hears positive reports about a summer institute for teachers in Kananaskis, Alberta, from a colleague who had participated in it in the past. After further investigation, she finds that the institute is a one-week residential program at the research center there, that most who participate have their expenses of room and board covered with PD funds, and that if desired, the "course" can be taken for university graduate credit. After perusing the website, she becomes excited about the topic for this year — water. She finds that leading research scientists (including several Canada Research Chairs) will attend the institute with the teachers, that they will go with the teachers to sites in the area that illustrate the scientists' specialties (for example the glaciologist will take them to the glacier field in the area, the groundwater specialist will go with the teachers to areas with natural springs, etc.). She emails her friend in British Columbia, who also becomes interested, and who also recruits one of her colleagues. The three teachers attend the institute, hike through some of the most beautiful country in the world while interacting both formally and informally with leading scientific experts, eat great food, and meet other teachers from all parts of Canada. Deep discussions at the lunch or dinner table involve how each teacher copes with issues like those of life balance, pressure from the bureaucracy, and student motivation. Throughout the week, university facilitators introduce underlying concepts of educational theory to help the teachers eventually decide how they can use their new learning to deepen student understanding about the environment and about how science is done. Much of the discussion centers on what is really important when we teach ecology in school, what values we hold in regard to the environment, and how we can portray this to students while achieving curricular objectives. We all leave with enduring ideas and concrete lesson plans that we have developed ourselves, along with great memories of the natural and social environment.

Unfortunately, funding for the institute is eventually denied by the school board that the teacher belongs to, on the basis that this activity could be used for university credit (even though her fellow participants are approved for funding by different boards). The participant appeals the decision to withhold funding and is subsequently able to use PD funds for the room and board portion of her costs, but not for university tuition if she wants 'credit' for the course.

Scenario 2

An experienced full-time Albertan science teacher has a full teaching load in one semester without any prep time — so she teaches four different science classes (e.g. Chemistry 20, Biology 30, Science 10 and Science 24) for 6 hours per day. She has over 100 students that she sees every day. All planning, marking and other preparation is done by the teacher outside of these hours. Supervision, club participation etc. are also done after school and at noon hours. In October of that semester, the first Professional Development day of the year is scheduled. The teacher is required to drive into a nearby city (at her own expense) and go to a "PD session," which she is told little about in advance. The session involves sitting for 6 hours and listening to an American pediatrician ask the teachers present to *start to consider* different students' learning styles in classrooms. Students are getting left behind, he asserts, because teachers are not looking

at each student and tailoring the instruction to their brain function. He cites many research studies he has carried out. The teacher feels that she should be doing this; that some students are not succeeding in her science classes due to lack of individual attention. She drives home feeling tired and inadequate.

A few months later, the pediatrician commits suicide as *hundreds* of sexual assault charges are laid by his young "research subjects." The teacher feels shocked and disillusioned. She is left to wonder if anything that that particular presenter said had any merit, and also starts to wonder how the decisions as to which speakers to invite to present at PD days are made.

Scenario 3:

A department head at a local high school has spearheaded a drive to use data-logging technology in science classrooms in her school and district. After months of after school meetings and planning, the school district buys the equipment needed to convert the laboratories in the school to digital labs. Students can use laptops and probe-ware technologies to measure parameters that were impossible before in high school labs (things like heart electrical activity — EKG, carbon dioxide production in plants, or melting points in chemistry). The science teachers at the school are excited about the new technology, and are willing to use it in their classrooms if they get a chance to try it themselves before asking the students to use it. The last PD day of the year is scheduled in March of that year, and the department head asks the administration of her school board if she can use some of that day to present the equipment to the teachers that would use it and have them get a chance to "play" with it. She is told that there are other plans for that day. She hears rumours that the day will feature a speaker on the subject of using technology in schools. Perfect! The teacher asks if she can announce during the lunch break that the equipment is down the hall, set up, and the teachers could spend a few minutes looking at it. She is told that that is not acceptable. No reason is given for this decision.

The PD session that day consists of a teacher from Saskatchewan, with little in the way of academic credentials, showing the teachers You-tube videos of dogs eating candies and other entertaining clips. No other technology is cited or used. The man has difficulty setting up his computer before and during the presentation. All the high school teachers are in attendance — and attendance is carefully recorded at the beginning of the session by asking attendees to fill out cards. After lunch, over half of the previously occupied chairs are empty. At *3:35pm* on that Friday afternoon, the administrator in charge announces without warning that the science department head has new technology set up in the lab and that interested science teachers should go and try it now. Surprisingly enough, several teachers do turn up to try the equipment, but the majority of the teachers that were left after lunch go home. The department head feels that her efforts are not appreciated, and worse, that her science teacher friends think that they were expected to "stay after school" because of her initiative, and hopes that they are not annoyed at her for imposing yet another requirement on their personal time.

Appendix 3: Utrecht Workplace Engagement Scale

Work and Well-Being Survey (UWES)

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you felt it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. At my work, I feel bursting with energy.[a] (VI1)
2. I find the work that I do full of meaning and purpose. (DE1)
3. Time flies when I am working. (AB1)
4. At my job, I feel strong and vigorous.[a] (VI2)
5. I am enthusiastic about my job.[a] (DE2)
6. When I am working, I forget everything else around me. (AB2)
7. My job inspires me.[a] (DE3)
8. When I get up in the morning, I feel like going to work.[a] (VI3)
9. I feel happy when I am working intensely.[a] (AB3)
10. I am proud of the work that I do.[a] (DE4)
11. I am immersed in my work.[a] (AB4)
12. I can continue working for very long periods at a time. (VI4)
13. To me, my job is challenging. (DE5)
14. I get carried away when I am working.[a] (AB5)
15. At my job, I am very resilient, mentally. (VI5)
16. It is difficult to detach myself from my job. (AB6)
17. At my work, I always persevere, even when things do not go well. (VI6)

Source: Schaufeli and Bakker (2003).
Note: VI = Vigor scale; DE = Dedication scale; AB = Absorption scale.
a. Shortened version (Utrecht Work Engagement Scale–9 [UWES-9]).

(Schaufeli, Bakker, & Salanova, 2006)

Appendix 4: Poster from PD Committee Meeting (Nov 10, 2015)
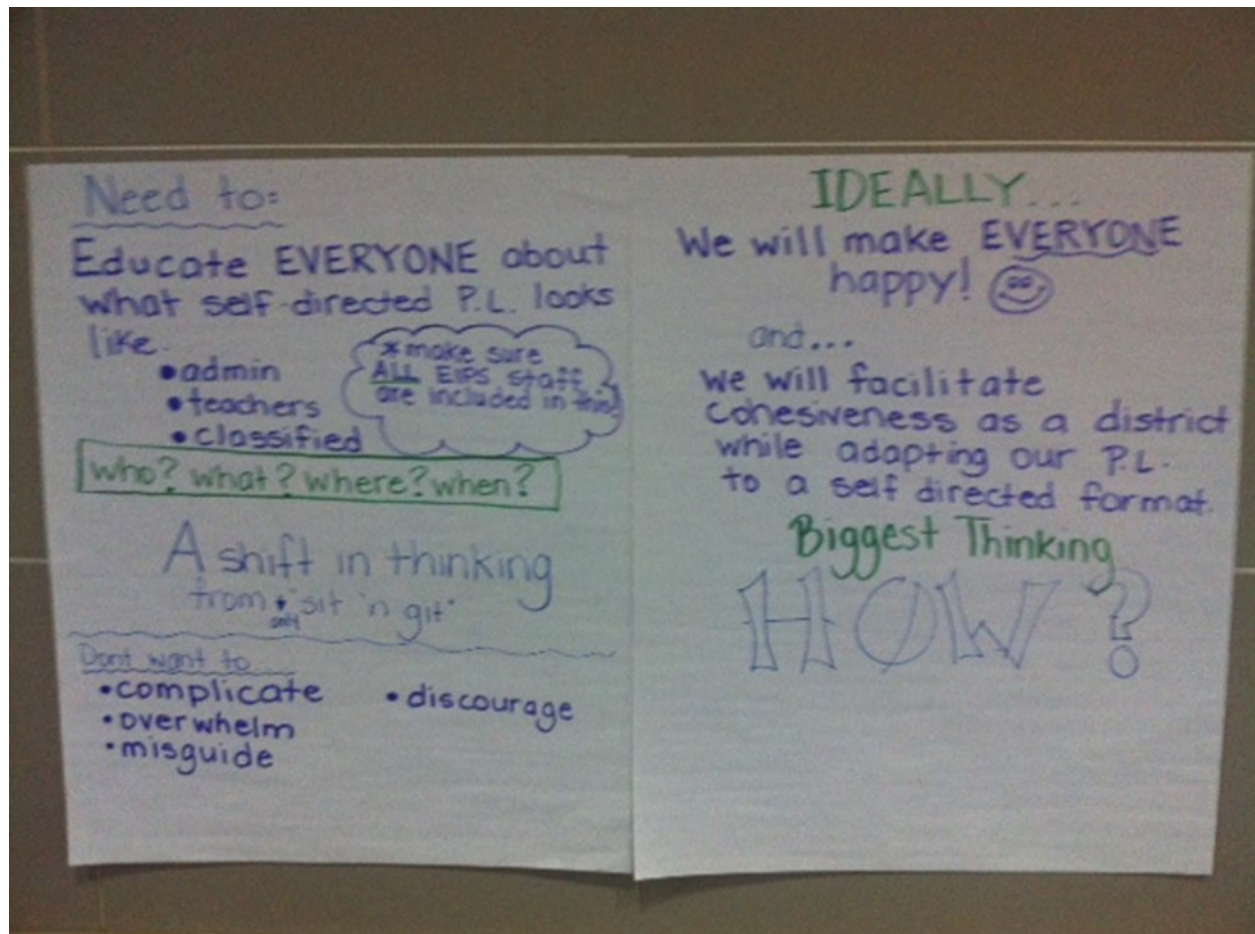
Appendix 5: Rules and Customs for Professional Development in this School District

The pre-intervention rules for this school district are described in detail below[27]:

- Each school year, approximately 5 operational days (days that staff are present) were designated as 'Professional Development' (or, new to 2014, 'Professional Learning') Days. The number and distribution of these days were determined by the central administrative staff approximately 2 years prior to the school year in question.

- Of these 5 PL days, some were designated as 'School-based' (SBPL) and some as 'Division-based' (DBPL) and this varied depending upon how the Professional Development Committee (PDC) and the PD Director planned the PD year — In 2014, 3 of these days were SBPL and 2 were at least partially DBPL (See Appendix 1: School District Calendar).

- The PDC is made up of representatives from the central office, principals, teachers, and non-certificated staff. These representatives are invited to the committee by the Director of Learning Supports and her staff (although representatives could volunteer, and may or may not be invited on that basis). How many representatives were on the committee and how often they met (and what decisions they could make) was up to the director.

- For the DBPL days, formal sessions were organized by the PDC. The Director of earning Supports would usually decide upon the keynote speaker in consultation with central administrative staff at the school division and then many smaller sessions (typically dozens) were planned by soliciting submissions, from PD providers (e.g. equipment companies, first aid providers, IT providers etc.), but also from staff. If teachers wanted to submit an application to host a session, a form was created by the committee that asked for the session

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[27] These rules are familiar to me as a long-term employee of this school district. I have been a member of the PD committee for this district, where I learned how the district PD plans were made. I applied for sessions at SBPL days, DBPL days, and Teachers' convention and was both accepted and denied for these under various circumstances (See Appendix 2).

description and how it aligned with the system's yearly goals (as published on their website). Some of these applications were accepted and some were not — this was at the discretion of the Director of Learning Supports (not the PD committee). Staff (including teachers, administrators and non-certificated staff) were then asked to 'sign-up' for these sessions on a website called 'PD Place' and attend these sessions throughout the PD day, including the keynote where all staff would gather and no other sessions were scheduled at that time. These DBPL days were held at the larger high schools on a rotating basis.

• On the SBPL days, principals were asked to plan PD sessions for their staff. Some principals planned multi-day programs (e.g. 'Leader in Me' or book studies), some would do school goal-setting and other school initiatives during this time. Teachers from the school were expected to attend these, but sometimes principals would allow their staff to 'work' during these times (they would not assign duties and allow their staff to do preparation or other duties). Two of these days occur just prior to school opening in September. Teachers would typically photocopy or meet to plan courses or projects and set up their classrooms during this unstructured time.

• In February of each school year, the Teacher's Convention would occur. By provincial contractual obligation all teachers must attend this 2-day conference. These sessions are also planned by a committee — this one consisting of teachers and administrators from several school boards across north central Alberta. If teachers want to submit an application to host a session for this convention, they must submit it well in advance (in April of the previous year) and many are not approved, as there is limited time and space. While teachers can apply to the

ATA (who is the umbrella organizing institution) to do alternate activities, these are almost never accepted.[28]

• Teachers in this school district had a PD fund that allowed teachers to apply for $1200 every two years for PD activities outside of the ones described above. An application for financial support from this fund was filled out by the teacher, and had to be approved by the principal before submission. This form was received by the ATA local office and the staff there decided if the application was accepted. This funding could cover substitute teacher costs, mileage or airfare, meals and registration fees at formal conferences, conventions or workshops. Proof of registration and a description of the event had to be supplied. This fund could not be used for informal teacher-organized PD activities, nor could it be used for courses that required academic tuition fees. (Courses offered by private providers, like IT providers, or first-aid courses, however, were eligible for funding). The fund was usually depleted before the end of the school year, so those that applied later in the school year were often denied based on lack of funds available.

• Other PD activities outside of these rules were at the discretion of principals and the central office staff. Special topics (orientation to a new computerized grades program for example) were sometimes offered to staff, and some discretionary funds were available to both principals and central administrative staff to support occasional other PD activities. However, these funds were very limited and teachers were often unable to access this type of funding in my experience.

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[28] The only exceptions I have seen over many years were national sporting meets, where the primary coach was a teacher, and grading of provincial Diploma exams, but even these were only allowed if no other option was available.

The changes to the 'rules' that this study introduced were outlined by me to the administrative staff and principals who volunteered to participate in the study before it began and at the late August staff meetings where I distributed the pre-intervention surveys and the consent forms to the staff. Many of the rules in the system remained unchanged, but the following summarizes the changes that I described to the participants at the three participating schools:

- On SBPL and DBPL days, teachers were not required to sign-up for or otherwise participate in district or school-based activities. During these times, they could organize their own PD activity, or participate in activities organized by others that were outside the 'approved' activities. If the teachers wanted to participate in the 'approved' activities as well, this was acceptable.

- Since participation in this study was anonymous and confidential, the central administrative staff and principals (and other teachers) had no way of knowing who was participating in the study and who was not, but principals could ask teachers for their PD plans for these days (or not, at their discretion).

- Other rules — for Teacher's Convention, and for funding, etc. were unchanged.

In Activity Theory terms, this slight change to the rules had the potential to change the way that the Subject operated within the activity system and the progression of the Subject toward the Object and eventually the Goal. The results that follow outline the themes that arose that were expressed by the participants in direct reference to these rules before the intervention took place.

Appendix 6: Interview Script

(This script was altered to include only the past year in the post-intervention interviews)

1. How, in general, would you describe your year last year or the last few years?
2. What challenges did you face last year (or otherwise recently)?
3. What did you find to be rewarding?
4. Please describe a typical professional development activity that you participated in in the past
5. Tell me about a professional development activity from the past that you thought was especially good.
6. Tell me about a professional development activity that you thought was disappointing or not worthwhile?
7. Why did you agree to participate in this study?
8. Do you feel you have control over your professional practice?
9. If you were to describe your energy levels over the last year what words would you use?
10. What did you see as preventing you from pursuing your professional development passions or interests in previous years?
11. What has helped you to pursue your interests or passions?
12. Describe what you see as the perfect professional development situation
13. Can you summarize for me what you've told me and what you think is most important in what you've told me?
14. Any thing else you would like to add?

Appendix 7: Staff Meeting Notes (Naturalistic Observation Journal) — August 28, 2014

- few teachers seemed to be in the school when I arrived — ███ in meeting
- made announcements about session
- only ~7 came! And only about 10 forms returned — this is disappointing. I really hope that they will continue to come in over the next week or so
- Seminar - teachers anxious to leave as soon as they came → needed time to prep!
- I started with PGP plans + how I've done it before + now, how TQS can be easily cut + pasted in, and how reasons + longterm planning impt
- told story about my own 5 + 10 yr GP → they seemed intrigued by this

Comments
- from sp. ed. teacher — have 4 aides — need specialized PD + training
- CTS teacher — the people here are the 'loners' — those that don't have a dept or community that typically does things together
- has found it very difficult to find PD to fit his needs — I kept probing him — can you make this work for you? He didn't have a concrete answer.

- the horticulture (teacher or tech) had many ideas and seemed a bit at a loss for how to make them into something - who to contact, where to go etc. My comment - your problem might be that you have too many ideas. She agreed + commented more on all the things she could do - go to Olds, go see other H. teachers out of district, go to tree farms, etc.

- ███ - said he was there to "represent the science dept" - and seemed the most pragmatic + understanding. I Talked about how this is impt to me as a member of the community of educators - not a admin, COffice staff, academic, etc

- he agreed - no agenda, no we (as teachers) participate in research + get nothing in return.

- Q from "baker" - what is your goal? with this?

  - my answer: to have everyone SD their PD - she asked again - I was not understanding her Q - I'm not sure I ever answered but I said - for us all to become more independently thinking professionals

- Showed them Outlook folder - seemed just OK about this - they asked if it would notify them - I said only if you looked at it!

  - conversation about Skills canada ū CTS teacher - maybe could liason ū ███ know we do that too

  - conversation ū hort. teacher - lab asst at ███ a hort.

* + - suggestion - have a list of same subject teachers so that they can contact each other! (from CTS teacher) - said I would try to do this.

- left extra surveys ū ███ + asked ███ pelt post on Staff News that they can continue to hand them in and contact me.

Appendix 8: Emails to Participants: Samples

See this link for all applicable email communication:

https://drive.google.com/file/d/1y4WGZwvUOnoa8Ht0Ybqb-eN-0mki7w4d/view?usp=sharing

Sample:

From:	Kerry Rose ▮
Sent:	Sunday, October 05, 2014 1:40 PM
To:	Kerry Rose ▮
Subject:	SDPD and October 10

Hello and Thanks!

If you are receiving this email, I have you as responding to my survey that you may be interested in doing self-directed professional development this year. Since October 10 is your first chance to attempt this, there are a couple of things I'd like to mention to you:

Remember that the first part of the day is a required presentation at ▮ After that, you can do SDPD if you like. (For part or the rest of the day). If you need space to get together with colleagues, or just to work, rooms will be available at ▮ and ▮ will also be open in the afternoon at least. If you are using another site, please let me and your principal know your plans. I'll let you know what rooms at ▮ are available as soon as I know.

Remember that you don't have to have an activity all ready and completely planned out. The idea is to have the TIME to plan, implement and evaluate your own PD. So, you can use the time you have on Oct 10 to plan something.
PGP's are due Oct 30 so you can do this as well!

If you are doing something that you think I might be interested in dropping in on on Oct 10, could you please let me know? (Just reply to this email). I would like to just see this process in action, no matter how chaotic or unorganized, or even if you are just doing something by yourself. This is part of my research and I need to see difficulties as well as good things!

I might be contacting you this week to see if you'd be willing to be interviewed in the next couple of weeks if you indicated a willingness to do this on the permission form. These interviews are short chats - nothing intimidating or formal, and of course anonymous and confidential - as is everything I see and hear from you.

Thanks again for being the leaders! I am proud of you for being willing to be ground-breakers!

Kerry

Appendix 9: Mid-intervention Observation Research Journal Sample

███ W-shop
- waiting for HS teachers ("lazy" ☺)
- Jr high teachers there – 3-4
- learning how to make "jigs" – cannot buy
these – safe for students because they
fit into guides on saws.
- expertise obvious – journeyman cabinetmaker
- used word of mouth to contact participants
(need to send him the list of teachers)
- materials and posting – ███ helped him
with $ too
- feedback "Great, Just Great." – will increase
<u>collaboration</u> – he can prepare wood a Gr 12's
for Jr. Highs who can't afford pre-prepped
wood supplies
- need principal permission – has stopped some
from participating
- loves his job – does not want to teach at U –
has both motivated kids + not.
- feels it is not good for him to be teaching
several years + not even know names of other
'shop' teachers
- ███ "I need to go + find out what he's doing.
I'm losing students, program is at risk"
- next sessions – contents sharing – more difficult for
CTS teachers
- obvious that ███ has formed a community –
some of the teachers are students he taught at U.
- <u>Thanked</u> me for the opportunity

(left margin, vertical): – talked about how this allowed them to come to consensus on what students should know (standards) for eg moving from Jr to Sr high.

- saw ███████████████ leaving google classroom together
- ████ talked about how this will work for her BIO 20 field study - no excuses about access, compatibility, can track who did the work!
- I asked her if she would share this with us at ████ she said in June (was excited to do so I think)

████ + English Teachers
- roundtable discussions w teachers and st. teacher
- great sharing, enthusiasm obvious
- teacher (████) w high standards influencing how things are done (eg. 6 assessments of writing per term in 30-2)
- invited me to session w ████████ teachers in afternoon - were pumped about it (+ proud)
- ████ - tried to get ████████ teachers over - "things" got in the way.
- other teachers' feedback -
  - loved this sharing - could do it for all PD
  - common grading standards - they learned from each other + then had the confidence to assure students that they were consistent + fair
- saw this as ↓ competition among teachers (+ ↓ student "shopping" for teachers)
- passion obvious in discussion
- student teacher completely engaged - seeing this was excellent for him I think
- ran out of time this year - would love one PD day/month!

Appendix 10: Quote Classification Process in Activity System (Photo)

Appendix 11: Division of Labour (Hierarchy) Quotes — Pre and Post-intervention
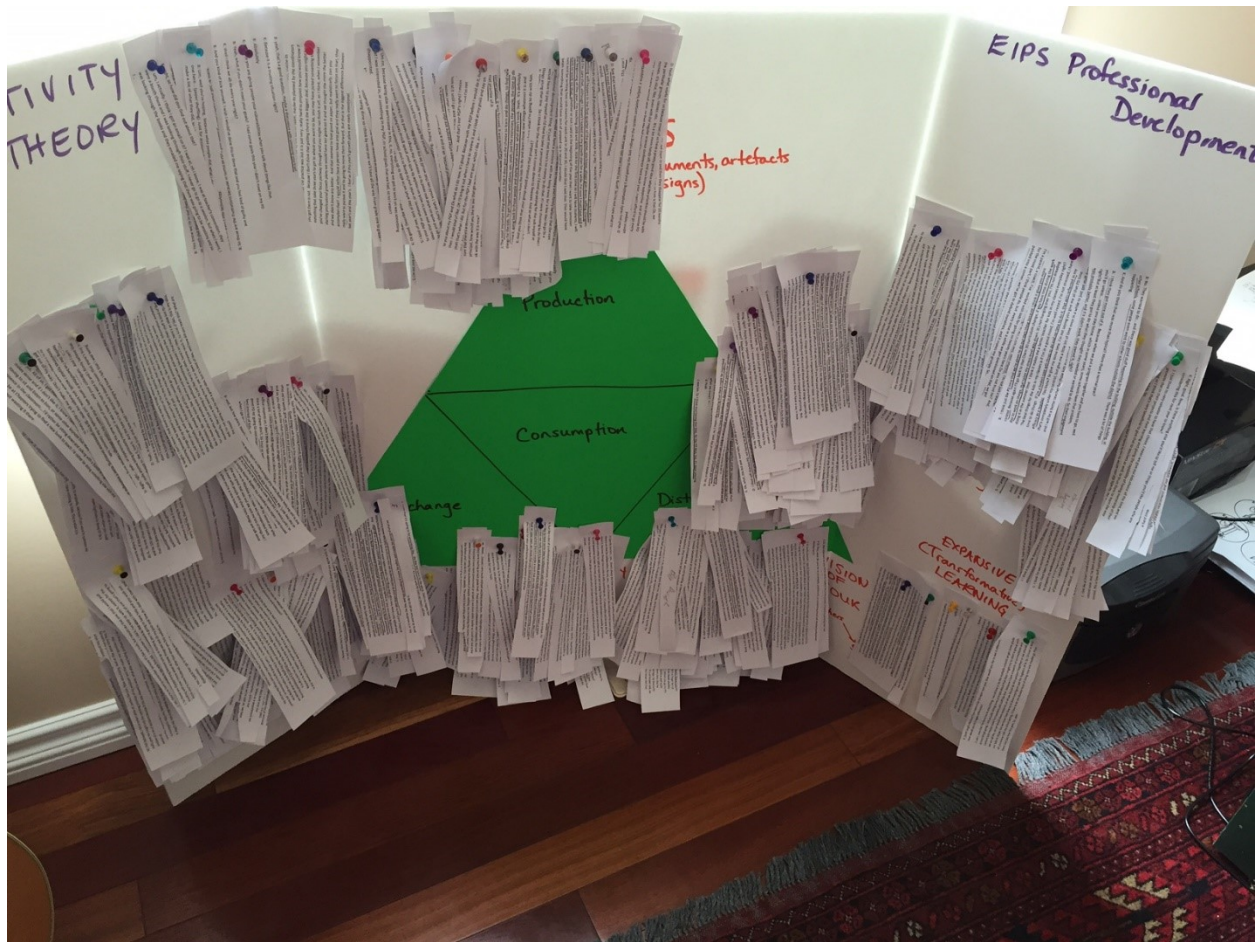
Appendix 12: Data Analysis Table

Table for Data Analysis

PRE-INTERVENTION DATA

SUBJECT	
Theme	Supporting Quotes
Committed	"getting [the students] over that bridge, getting them to that next step an showing them they can do it, like getting them to exceed their expectations and that just really inspires me" (14–1) "Overwhelming in some respects [but] satisfying … I'm always satisfied by the end of the class with what the kids can do, but it's absolutely exhausting getting them to that point." (13-1) "Teaching is a huge commitment. One that a person has to put their whole heart into. Where you do need that energy. But you do need the back-up. The back-up is to learn" (14-1) "As teachers we are so worried that we are doing things right in our classroom, we want to do best by our students, do best by our school and areas of weakness" (6-1)
Limited time/energy	Oh, I'm going to be swamped and that kind of thing…[but] I like to do extra-curricular to be able to connect with these kids more on a personal level and then I can relate to them better, which I find then that they learn better" (2-1) "it's the last thing you want to do … do a workshop or go to or even organize something for yourself [but] having a group of like-minded people you get along with really helps, that's for sure" (2-1) "keep all those balls in the air — my days are pretty jam-packed … it's all about time, for me, time is such a commodity, it's worth it's weight in gold, there's never enough of it" (18-1) "All of my administrators have found the money for me to do that so it's really just a matter of me getting my act together. A little bit of time to sort out what I need to do and admin have been really supportive, whether it's time, money, they are the two big ones." (16-1)
Tired, overwhelmed	"This job will suck the life out of you if you let it and you've got to try to contain it, for your own good and the kids in your class" (18 -1)

	"It seems that time, there just seems to be getting less time to do things. There's more and more being added on to people's workloads." (7-1) "Even though the county do offer workshops, etc. it's always after you've done the full schedule and unless it's right on topic that you're doing it's hard to be motivated to actually go to them. So, and sometimes the best PD is rest, you know where you really get energized." (16-1)
Isolated	"it gives me a chance to get out of the classroom and interact with others… I find that teaching can be isolating, it can be lonely… sometimes you're surrounded with 30 people, but, I pine for an adult." (16-1) "It was really hard when you don't really have anyone to talk to… I found it difficult that I was not able to sit and meet with people and show them things and talk about those" (20-1)
Applicable/practical PD valued	"I guess it's the practical stuff more than the theoretical stuff for sure. I like actually getting something done." (5-1)
Some PD experiences rewarding/useful	"I also seek out conferences and … I was really interested and… took some really good learning from that for my practice" (10 - 1) "To say that I don't like organized events is not true, OK? Because I do enjoy those, I enjoy the camaraderie, I enjoy it for, sometimes just looking through the list of stuff… ho! I didn't even know that was a thing! I want to go see that." (6-2) "Occasionally you run into somebody who's really good, but those are fewer and farther between." (6-1)
Learning needs sometimes not met	"it was the needs of the students … [but] no one was being aware of my needs" (12-1) "Good things will happen in the classroom if you treat teachers with respect… give us some time and trust us. This mistrust that you will do this because we said so, you didn't ask me what my opinion was, you just told me what to do… are we professionals or aren't we?" (18-1) "We know what we need, we know what we're missing. We know what the kids struggle with, what the kids don't struggle with. What the kids like and what they don't like. And so if we can get together in like-minded groups, it just seems to make way more sense and [for other schools] we could offer help and work together." (13)

Sometimes resistant	"A bit of unwillingness on some people's part to change [which] can be frustrating" (5-1) "I thought I could at least do something … that I would like to find out about. I don't like the idea of because I don't understand it, I don't like it therefore I'm resistant to change and my choices have been something that has been a paradigm shift" (6-1)

RULES	
Themes	Supporting Quotes
Prescribed	"there's so many things where you go to because you have to go to something … you have to sign up for so many sessions, things fill up and then you can't get in… there really needs to be more differentiation" (20 - 1) "We either show up to a session or register for a session based on what we're interested in, based on our PGP, and then take something from there" (10 -1) "decided by the district or the school and I would have to go to it and sit there and listen and try my best to pay attention to it" (20 -1)
Lack of boundaries	"I didn't know I could do something. You know, if you don't know you can go take, apply for funding and take a session, you would never know… I guess then it depends upon the dynamic of your school… just knowing what's available and what are the things that you have to do to get there." (8-1)
Professional obligation	"You have to create a professional growth plan and it's part of the teaching act and all that stuff, but when it comes really more from inside and you can really see how you can do something and you can see in a quick amount of time how that benefits, you're going to get people even more excited about their learning"(7-1) "If staff are told, well, at least one of your goals should be related to the school education plan then that, in a way, is limiting them as well. On top of that we also have district and provincial expectations as well as… well there's two other layers" (7-1) "It would be really nice if they were worthwhile instead of… I just feel like they're tossed in there for the sake of an ATA agreement or whatever. (5-1)

	"It's kind of, it's an obligation I suppose. That time is built into our timetable and we're expected to do it and fair enough. Is it as useful as it could be? No. So it's kind of I suppose a necessary evil. I try to be open-minded and learn things and I've seen some great sessions at Teacher's Convention, but it's hit and miss, really hit and miss. (18-1)
	"For the provincial goals to the district goals to the school goals and everyone is saying, this is what you're going to do, this what you're going to do, and in turn that's what the teachers have to do for their PD" (7-1)
Not voluntary	"Why do we have to sit and listen to him, not even justify what they're doing" (13-1)
	"I can't recall really anyone being particularly impressed. It was a have to not a want to. And I firmly believe that want to, choose to, like it, love it." (12 - 1)
Teacher initiated ideas not allowed	"Oh well you know, you can't. What do you mean I can't? Well it's district PD and the district needs us to be at ___ for the day. But what about the problem? Oh, you just have to wait until February! That doesn't work. That doesn't work for anybody… so I can basically lie and have everybody in my department skip the PD day and convene at say, my home, or I can follow the directive of my administrator and fly in the face of what I know to be a sensible course of action" (1-1)
Little follow up	"I sit in a chair. Someone speaks to me for a few hours…. For the most part it was a download of information." (11- 1)
	"Good ideas and not much coming out of it" (4)
	"When I think of one that's going to help me in the classroom I have a very hard time remembering the name of the classes" (14 - 1)
Not enough time for collaboration	"Time and my administrator would be the two pieces that would have slowed me down and stopped me" (3-1)
	"More time to work collaboratively, would be the one thing I would like to have more on." (8-1)

COMMUNITY	

Theme	Supporting Quotes
Collaboration is important	"There are so many things that teachers want to accomplish, and we never have enough time to do it. And, if there's something that really interests me and other colleagues we can work together and work on it, that's just the best thing. Collaboration with other people is really huge." (8-1) (Question: Describe the ideal professional development situation) "Firstly I'd have to say interactive. With real people." 7-1 "I need a lot of interaction with other people and if I don't have that then it's not… I know I won't learn as well. I also like some things that are not just some talking head going blah, blah, blah. There's some… there's a good opportunity for discussion and sharing ideas." (7-1)
Similar interests to others	"I like the idea of self-directed, but I still enjoy collaboration so it would be with a group of like-minded people. Sometimes like a professional learning community but it doesn't have to be such a large group. It could be two or three people who have a similar objective in mind or project in mind and working together as a team, a sort of collaborative group. (16-1)
Less barrier to working in diverse groups	"I really don't think we have enough time to collaborate with other teachers, from other schools, even Div I, Div 2, collaborating from that branch, from grade 3 to grade 4, we just don't have enough time to get together with teachers and hash stuff out and go through some of this curriculum that we're forced to teach." (8-1) "You can collaborate with other people, so you could go somewhere else and go work with someone or each month you have a different person that you work with. So I just think in an ideal world you just have opportunities, less barriers in what you have to take, what you can take, things that are available. Yeah, I guess, just not being restricted to having to go to an hour and a half session in a small stuffy room where there is no room." (8-1) "Wouldn't it be incredible if we had time as a professional learning community to actually convene? Guilt free?" (1-1)
Work through new ideas	"I think [PD] is especially useful for younger teachers because we really need the time to work through things, and I can't just immediately decide that something's going to be perfect and use it the way it is, I need to work with a different science teacher, a faculty member, somebody from a different school, whatever, to put things together and come up with practical activities that take a little longer to develop." (5-1)

	"When you say, take your time, do what you need to do, boy you can get a lot done… so just being able to focus on just one thing. I don't have to run from this class to that class and then it's coffee break and then back in and you've got to sit and listen and, that's when I feel sorry for the kids sometimes" (14-1)
Lack of collaboration in PD parallels with student individual performance expectations	Some thing that's always been troubling me as a school that we demand individual marks but the real world is a collaborative environment, you really are not isolated by yourself working on something, its' usually a collaborative effort, a group thing, and then we expect our kids to do an individual unit exam or project by themselves for individual marks to springboard and it's sometimes carried into us as teachers. (16-1)
Professional identity: sharing	"There's a want to give back, a want to share. You know you can only hold on to good information for so long until it's meaningless. To share what you know, that's what makes it worthwhile. I guess that's a profession. Without that, what do you have? Nothing. Why do we do this?" (12-1)
less fearful of sanction/judgement in groups	"Anytime that I can sit with colleagues an discuss what's going on in my classroom, in their classroom, and I know that what's said stays in the room, to me I have to accept that, almost like a lawyer-client, a doctor-patient… but the people sitting down, talking, the door is closed, what is said stays in there, without fear of reprisal, without fear of judgement, where someone can ask a question, people answer it, and professionals share thoughts amongst themselves." (11-1)
Making/keeping contacts important	"For myself, I don't think professional development should be singular. And I don't think it should be site-based but I do think it should be are and content based. For me. So what would be perfect for me would be an active participation making contacts with people who teacher in the same areas." (4) "you go with the hopes of maybe catching up with some old colleagues." (6 -1) "What I like most about that is talking with people who I haven't seen in a while. And going out for lunch, and eventually you always come back to talking about your practice whether you mean to or not" (10 -1)

OBJECT (PD)	
Themes	Supporting Quotes
Need more choice/freedom	Question: What is an ideal PD situation? A: Ok, well I think how you have laid it out is very close. You have choice. Which in adult

	education, if the adults don't have choice they're not going to buy in. I think the idea of people forming their own PLC's based on interest is very, very strong, because, again it comes back to interest… the more interested you are, the more engaged you are, the better you remember. It's just… better." (10-1)
	"I can't recall really anyone being particularly impressed. It was a have to not a want to. And I firmly believe that want to, choose to, like it, love it." (12 - 1)
	"I think it's important for people to be in charge of their professional development because they know what they're interested in and being told what to learn about isn't really going to work with adults because it's not the same kind of buy-in. Like you can kind of trick kids when you're teaching them, but like — oh this is so exciting!" (20-1)
	"I was so excited about self-directed, because I feel like, especially for the last two to three years, I've been basically doing all of my own PD on my own time anyways and like I said it's not that there's not sessions that I want to go to, but like when you have to just choose a session to choose a session, I don't see how that is spending your time wisely." (20-1)
Not all PD needs to be self-directed	"The idea of doing completely self-guided PD in my opinion is not perfect. I'd like to have some guidance and I'd like to have the option of doing some of these things but you know if we have a day to work on something and we're at a school… if I have time to sort of see it and then, there's a computer lab and you can go and work on this and there's a lounge where I can talk to the other three Bio teachers who are around about a certain thing, or trying to improve it or whatever… so maybe less sessions than there currently are at these things and more open time in a group environment to sort of play through them a little bit and see how they work, or you know if the presenters could stick around and answer questions for the rest of the time instead of taking off. Because I feel like when it's four sessions in a day, I 'm just running around and I don't necessarily get anything done." (5-1)
	"I like knowing there might be organized events and organized speakers but I would like to have the freedom to decide if that particular speaker is going to be useful to what I am trying to accomplish and be able to pursue other alternatives if not." (15) "I do believe that, much like teaching, there is a time for direct instruction and there is a time for self-directed learning…. So I don't have a one answer, because that answer will change month to month, but if it's ever going to be a sit there and listen, I don't want it to be a

	you could have handed me a piece of paper, read this, because then I've wasted my time. Because I can read on my own time." (11-1)
Needs to be relevant	"I'm busy. I know how to budget my time. So if I'm professionally developing, make it meaningful or get out of my way." (12 - 1) "I get very disappointed because what is being provided is so beneath where I'm at … so, I get very frustrated. And I patiently sit through it and nod in niceness and answer the questions, but it's not particularly helpful." (6 - 1) "I find their stuff is kind of like for people who are just starting or it's just like here's and idea, here's and idea, here's an idea but it's not necessarily… well, how did you teach this? What are the steps?" (20 - 1) "Typical professional development activity… show up early, the session starts late, the coffee is bitter, I'm impatient and bored because the person in front can't articulate, has little confidence in what is being spoken to and typically speaking, despite what was promised in the description, has very little to do with my professional practice" (1 -1) "If my presence could have simply been a tape recorder, I did not professionally develop" (11- 1) "There's a lot of review stuff, where I'm going to show you fifty things in like twenty seconds and good luck catching any of it and then there's a lot of stuff where it's so specific that I know it doesn't apply to me and I feel like those are my only two choices" (5 - 1)
Directed PD can lead to frustration/inadequacy	"Oh, so I'm just crap as a teacher? So I don't want to come away feeling like that and a lot of the time, that's what I come away feeling like — like I'm not doing enough" (13) "I can only enhance my teaching by trying new things and if I am fearful of getting slapped down, reprimanded, for every failed risk, then I don't want to take risks… I become stagnant." (11 -1) "Sometimes I would, you know, just barricade in my classroom, hide." (12 - 1) "Well, now I know what all these things are and oh my gosh and how do I deal with them. And I think you're more flustered after than when you first walked in" (14 - 1)

	"it really gave me insight into the spending priorities of my employer and that made me question the wisdom of a lot of decisions because if this was viewed as wise, what else was being pushed that I'm not aware of" (1- 1)

TOOLS	
Themes	Supporting Quotes
PGPs	"Nobody seems to oversee these … and then at the same time, as much as I can set these goals, it always seems to come down to me to pursue them both in terms of the time and the money associated with them." (1-1) "There's a fine line between growth and the areas you're already responsible for, for example lesson planning is not a PGP item, it is a job requirement." (7-1)
Creating/sharing resources	(describe a perfect PD situation) "Sort of like what we were able to do this year with you, where you … go and work on what you need to or research the things you need to or having time to create materials, that's yeah, I would say that would be my perfect day" (9-1) "She [a consultant] was in the trenches with us and she was bringing many of the items that she was using and you could use them or modify them or use that as a jumping block and that was probably some of the most effective." (6-1)
Time and Money	"Time is huge. Money to a certain extent but… I think time is a huge part because I hate taking time away from my classes." (6-1) "It all comes down to money and I firmly believe that the vast majority of administrators would not have a problem with me being away for a few days to go to a professional development thing. It's just that there's no money to do that." (13-1) "Do I go cap in hand to the principal? Fund has none, none left from last year… so I'm not sure what I'll do." (16-2) "All of my administrators have found the money for me to do that so it's really just a matter of me getting my act together. A little bit of time to sort out what I need to do and admin have been really supportive, whether it's time, money, they are the two big ones." (16-1)

	"It's time, time. And if you tell me that I'm valued as a professional, then show me that. Give me the time to do what I need to do and give me the money to be better at what I do. I don't understand why our district is so afraid to invest in their professionals." (1-1)
	"I did some digging after the fact and I found out how much the district is paying this company monthly for this service and I'm thinking, my god, you're putting money at what?" (1-1)
	"There's no empowerment to pursue what we set as goals. There's no time associated with it, there's no money associated with it… we have no time to collaborate — ever, ever." (1-1)
	"When the class is over, that's it, you're done. You take what you got and you either get it or you don't and you have to have more time to do that." (14-1)

DIVISION OF LABOUR or HIERARCHY	
Themes	Supporting Quotes
Principal/Admin Support is key	"I feel that right now where I am that I have a lot of control, I feel that my principal ___ really respects our judgement as professionals and ___, I think ___ very respectful to us as professionals and __ comes in and ___ doesn't interfere, ___ always has positive things to say about what we're doing." (20-1)
	"My other school, I said, here's the professional development I'd like to do, I sent an email, four weeks, he completely ignored it, and then he said no you can't do this, I want you to do this training. Well, it's training I've already done three or four times. I have certificates in it at every level and I don't need to do it again and it's of no relevance to me. And I was like, I don't want to do that, and he was like, that's part of our school education goals and you're going to be participating in this. When I got to leave that school I was very excited because I could be in this [study] and do the stuff I wanted to do. Because it's what I need to do." (3-1)
	"What runs me down more than anything else is frustration dealing with my administration. How quick they are to volunteer my time." (1-1)
Leadership as gatekeepers	[Leaders are] very important, they can either encourage or discourage, they can put limits on what they let people pursue or they can say here, have at it. And sometimes there's a direction that we have to say, like

	there's certain things that are non-negotiable for us, like when the government has four goals. Nothing we're going to do here is going to change that." (7-1) Barriers: "Our district of administrators really being on the fence about what [SDPD] looks like, how do we get to the next spot, do we have a choice or don't we? For me I think it affects administrators but I think it also affects teachers, I think it affects cultures of schools and ultimately affects what we do with kids." (10-1) "For PD's (principal's name) is really good a coming to the staff meeting and like — what do you want to work on? But a lot of principals don't do that so… overall for those PD days if you're being told, oh you need to do this or you need to do that, you need to be here or see that, then no you don't have that control." (2-1)
Trust	"I suppose there's always an element of trust. It has to go both ways, it has to be trust that the staff will do what they say they're going to do but also trust that if a staff member says I want to do this self-directed professional learning that they won't present it to their administrator say, and then get shot down." (7-1) "I guess the biggest thing is that everyone is on the same page and the choice is what I could say and that admin and the board is trusting the teachers that they're going to use that time for their own professional development" (2-1)
Leadership influencing school culture	"A lot of challenges came from, in my opinion, having administration that wasn't as stable as I though it was. So it made it challenging for a lot of people… because we were never really sure about directions, and about what the end goal was." (10-1) "We pass through things all too quickly, and when there's a push, there's a push back. And that's from kids and parents and child and students and staff and administration. You know, there's so many parallels of that push, push back philosophy that kids are holding onto this and when they are empowered and we're empowered — we can go places!" (12-1) "For PD's (principal's name) is really good a coming to the staff meeting and like — what do you want to work on? But a lot of principals don't do that so… overall for those PD days if you're being told, oh you need to do this or you need to do that, you need to be here or see that, then no you don't have that control." (2-1)

Fulfill certain requirements	"For the provincial goals to the district goals to the school goals and everyone is saying, this is what you're going to do, this what you're going to do, and in turn that's what the teachers have to do for their PD" (7-1)

OBJECT	
Themes	Supporting Quotes
Need more choice	The way that professional development is done right now is not working … in order to make it work that teachers have to be the ones that come up with what they need to do, what they want to do, and we will be doing and that I don't think that professional development can be *en masse*, everybody in the school working on the same thing. I think it needs to be specialized, unless you're dealing with a school initiative; I understand that. (13-1)
	You have choice. Which in adult education, if the adults don't have choice they're not going to buy in. I think the idea of people forming their own PLC's [Professional Learning Communities] is very, very strong, because, again, it comes back to interest … the more interested you are, the more engaged you are, the better you remember. (10-1)
Want more freedom	… there's a lounge where I can talk to the other three [subject area] teachers who are around about a certain thing or trying to improve it or whatever … more open time in a group environment to sort of play through [ideas] a little bit and see how they work. (5-1)
	I like having freedom about being able to choose what I like to go to, what interests me, and then just collaborating. I think collaborating is a big thing, definitely." (8-1)
Needs to be relevant	"Professional development is very important, but being given the opportunity to pursue PD that is relevant to what we are doing in our own classrooms or school is very important because then teachers can take something away that is meaningful and they can use it in their classroom." (9-1)
Not all PD should be SDPD	I like knowing there might be organized events and organized speakers but I would like to have the freedom to decide if that particular speaker

	is going to be useful to what I am trying to accomplish and be able to pursue other alternatives if not. (15-1)

GOAL: AGENCY	Supporting Quotes
Self-Efficacy	
• Can produce desired results	"I remember thinking that this was not even someone who works for the District, who's been brought in as a speaker, he's not even a teacher and he's talking about [the topic this teacher did his Master's degree about], so I thought, you know, I've got a thing or two to say about that." (1-1)
	"You had to ask, it had to be evaluated, it was… if it didn't fit somebody else's agenda then I don't feel it was given any credibility. And that's too bad, because, while they have an agenda, I also have an agenda, and being the best person to know what the needs of my students are and what my professional needs are… it's just lip service. Following somebody else's agenda. Being the good soldier, it's being the — Yes, administration. And you're just doing it politely. ((12-1)
	"I think I'm very excited about the opportunity to make the choices myself. I've been teaching for 24 years. I have been to an awful lot of professional development, some helpful, some not. And being able to pinpoint my weaknesses and fears, In this case that's what this year is about, I'm pinpointing a fear, and strengthening it I guess. That whatever the fear is, addressing it, seeing how other schools are dealing with this, because I think, well I know I am, I'm a control freak. I want to know where the students are — I want to understand this process." (6-1)
	"I can find it, or I can create it. But when it's being forced and I'm not sure what their agenda is, but you can get a sense that it's self-serving." (12-1)
	"We know what we need, we know what we're missing. We know what the kids struggle with, what the kids don't struggle with. What the kids like and what they don't like. And so if we can get together in like-minded groups, it just seems to make way more sense and [for other schools] we could offer help and work together." (13)

• Can forestall detrimental consequences	"You don't want to ask a question and be fearful that — Oh, that was a strange question, you mean that he's not doing that? And then worrying that someone is going to come in — Well, based on the question you asked you're probably not doing what the assessment policy says, when in fact I merely asked a question about it." (11-1) "The fear of being reprimanded for either failure or not doing it the way others believe it should be done. Teaching is a … we all have to teach our curriculum, but I would believe that for the most part teachers have not been told how to teach their curriculum. Certainly within [subject area], we were seeing within this last three, four, five years a change to you must teach this concept and you must teach it this way. Or, you must teach this concept and you must teach a variety of ways. So, the barriers have been my fear of adding stress by being called in by administration and having to explain my teaching practices." (11-1)
Self-reflection	
• Evaluates past outcomes	"Large, non-specific professional development is a real feel-good useless kind of thing. Let's go play golf, honestly. … But that particular large site-based type of PD I have never found to be useful." (4) "I should approach that [PD] and want to learn and want to try new things but I've been so frustrated by the lack of success with what I've been given [for PD choices] that I just… God, let's do a dentist appointment for that day. Like seriously, I'd rather go to a dentist than sit through a keynote! And that's horrible! And so my [spouse] is like, why are you so upset, and I say [name], you have no idea, I have so much marking to do and so much stuff I have to do and so to waste a day, I'd rather teach than do professional development." (13) "I went in [to a PD session] … and it was a person who literally had copied and pasted stuff out of textbooks, and then just sat and read the slides. And it wasn't interactive, it wasn't anything that I didn't already know, it didn't pertain to working with kids in a classroom… Please don't read it to us because I can get a book and read it — most of us have and do. … In many ways [that] was a waste of time because we don't have a lot of time to play with." (3-1) "I found some of them [PD sessions in the past] were not useful in the sense that we might have a good discussion but in the end it amounted to here's how you're going to do it, so if you're going to have a collaborative discussion then not listen to what comes out of that it ends up being a waste of time. It [past PD sessions] wasn't worthwhile

	in the sense that the concerns that were brought up were not really addressed I think." (15) "Firstly, relevance. Because it's the sort of, what's in it for me? "Like, why do I need to learn this? It's one thing to say this is going to help students, it's going to help the kids, that's one thing. And I suppose that would always be a big hook, but it is really why do I need to know that the daily five is the big thing in reading right now? Like how is it going to help me to help my kids?" (7-1) [Best PD session?] Well there's mine [the one this person delivered recently] (both laugh). Not just because it was good but because it prompted me to reflect on my own practice and when I'm thinking about what I do and I'm trying to decode it and how I can explain it to other people… it gave me a deeper understanding of my own work." (1-1)
• Considers how power, identify, subjection and freedom interact	"To a point I feel that I have control [over my professional practice]. I think that if I want to go to a session, I can apply for funding and go to a session. If I want to… if I talk to my principal and he agrees, he'll give me half day working, or collaborating or meet with a consultant, or go take a session. You know our administrator is wonderful here so it's quite flexible, I can't say that about other administrators because I don't know, but ours is very welcoming to new ideas, sessions, things that I want to go to, so here I feel pretty good about it. District-wide, when we had no other options but to go to the district-wide PD sessions it was painful. I despised going to those days, because it's painful." (8-1) "I think the biggest thing is, as an educator, as a teacher, you need to be able to have a say in what you need to do as professional development. So how am I going to become a better person or a teacher and a person in my job by doing this? Right? So having a say in what you can do and what you can make your classroom better, and basically make your whole school better because you have a say in it. So not being basically forced or not being put into a hole, right? Because if I'm a square, I'm not going to fit into a circle hole, a round hole. So it's just not going to work. But yeah, I like having freedom about being able to choose what I like to go to, what interests me, and then just collaborating. I think collaborating is a big thing, definitely." (8-1) "So it's, it just frustrates you that you can speak as much as you want to speak [at or about PD sessions] but no one's listening." (13-1)

"At the end of the day it is my job, I've got to sit across from those parents at parent-teacher interviews and justify what I'm doing and explain how I'm marking, you know? Joe Book Tour Consultant is long gone when parent teacher interviews roll around. So if I go off on some crazy tangent inspired by him that I can't justify and explain to parents, it makes me look like a buffoon. Right? So, yeah, I think I do have control, I've been questioned on it in the past, especially the last two years before this one and that kind of gets my back up. I find that offensive in a way, that, I've got to sit across from those parents, I've got to get those kids ready for the Diploma. Even in the non-ac courses, I've got to survive 82 days, teach them the best that I can. Do you not trust me to do that? Do you not think I'm professional enough to act in the kids' best interest? I'm not just a teacher, I'm a parent, coach, I've worked with kids for going on twenty years here. Do you not trust me? And, for the most part, I think people do, but every once in a while we get questioned on that, we get painted into a corner, we've got to defend ourselves, and it makes me grumpy." (18-1)

"I have no control over my professional practice. My day-to-day in the classroom, what I'm going to teach, how I'm going to teach it, yep. I've got that. But I don't have control over the number of kids in my room, I don't have control about the number of books that I can have, I don't have control about the fact that my technology sucks. I don't have control about when I want to go somewhere and learn something new if it's not feasible financially, I can't do it. Unless I put out of my own pocket. And that's what I was told that yeah, if you want to pay for it yourself. Well, in what other profession do you have to pay for yourself?" (13)

"it really gave me insight into the spending priorities of my employer and that made me question the wisdom of a lot of decisions because if this was viewed as wise, what else was being pushed that I'm not aware of" (1- 1)

"Whatever the topic has come to be, it has come from those people [within their own subject areas]. Those people have decided this is what we need to know. This is our area of dissonance. This is what we need to do to make our lives better. Not somebody at Central Office, not someone in the United States who's written some non-fiction piece of something somewhere else. Not Norway. We should drive our own professional development, we should decide what we need to know, what we don't have. And then we should be able to find the people to come in and speak to us. And so networking is really important I think. And so I like when we have those opportunities just to sit and network with other people. … We were able to get so much accomplished, and was it for the benefit of us? No, not really, it was

	for the benefit of the kids. Because we were able to sit down as a group and decide what we were going to do and then we actually had time to do it… We actually could physically have a plan and sit down and follow through with it and get it done." (13) "I like the idea of self-directed, but I still enjoy collaboration so it would be with a group of like-minded people. Sometimes like a professional learning community but it doesn't have to be such a large group. It could be two or three people who have a similar objective in mind or project in mind and working together as a team, a sort of collaborative group. Some thing that's always been troubling me as a school that we demand individual marks but the real world is a collaborative environment, you really are not isolated by yourself working on something, its' usually a collaborative effort, a group thing, and then we expect our kids to do an individual unit exam or project by themselves for individual marks to springboard and it's sometimes carried into us as teachers. (16-1)
Reflexivity	
• Adapts to needs of members of group	
• Emergent view of the social environment	"If I have to go outside [of the school] and talk to consultants in [XX District] or other places, I'll be shut down. And so what I'm learning and what I'm doing is not always being recognized as being what it is…. I think I'm smart enough to ask the questions and to do the stuff. I'm going to make mistakes, but we all do. … So I wanted to start the professional community… but to do that I had to talk to the person in charge and ask and she said no…but it's that piece, that, you don't know enough" (3-1) "Things need to change [with PD]. I don't know what that looks like. I just know that what we've go right now seems to be a one-size-fits-all. I'm just not sure who's foot it's on, because it's not mine." (1-1) "I don't mind if somebody else wants to do something, but when its starts to affect me then I want to have some sort of say, so I don't think that's unreasonable." (5-1) "The idea of doing completely self-guided PD in my opinion is not perfect. I'd like to have some guidance and I'd like to have the option of doing some of these things but you know if we have a day to work on something and we're at a school… if I have time to sort of see it and then, there's a computer lab and you can go and work on this and there's a lounge where I can talk to the other three Bio teachers who

	are around about a certain thing, or trying to improve it or whatever… so maybe less sessions than there currently are at these things and more open time in a group environment to sort of play through them a little bit and see how they work, or you know if the presenters could stick around and answer questions for the rest of the time instead of taking off. Because I feel like when it's four sessions in a day, I 'm just running around and I don't necessarily get anything done." (5-1) "I do believe that, much like teaching, there is a time for direct instruction and there is a time for self-directed learning…. So I don't have a one answer, because that answer will change month to month, but if it's ever going to be a sit there and listen, I don't want it to be a you could have handed me a piece of paper, read this, because then I've wasted my time. Because I can read on my own time." (11-1)
Intentionality	
• Plans to put collective action into place	(Question — what things helped you to pursue your professional passions and interests?) "Well, it's maybe not the best answer but sort of just offering to do it myself. I think it's the only thing that people are willing to do sometimes because it means that they don't have to. And it may be a shame that it has to be that way but… and I feel like I shouldn't have to go out of my way to get what is necessary for my class practice you know and if I want to… I mean I don't mind asking permission for something, or going to a principal and saying hey do you mind if I do this, but I feel like I shouldn't have to ask each individual person and I feel like sometimes I have to." 5-1
• Ability and need to act	[Speaking about being in an environment where PD is not as supported as it is at the person's present school] "It's kind of scary because I'm a very, I'm a little outspoken so sometimes people don't like that so… I feel like there would be a lot of headbutting and… I feel that I am very intelligent and quite capable of doing this and that if I feel that something is not working for my students I will do my best to try to find something else, like suggestions are a lot different than being told that you can't do something." (20-1)

GOAL: ENGAGEMENT	
Vigour	
• High effort	"I sit in a chair. Someone speaks to me for a few hours…. For the most part it was a download of information." (11- 1)

		"[PD was] decided by the district or the school and I would have to go to it and sit there and listen and try my best to pay attention to it" (20 - 1)
	• High energy	"I think it's really important that we need to pick and choose what we need as professionals and to be connected to others with the same ideas and passions because that allows us to stay current in our field, excited about our jobs, and energized because we get and feed off of that from each other." (3-1) "It seems that time, there just seems to be getting less time to do things. There's more and more being added on to people's workloads." (7-1) "I felt last year that our school lost a lot of spirit, and we were like beaten down robots. That's how I felt. And so I questioned whether or not this is really what I want to do" (6-1)
	• resilience	"This job will suck the life out of you if you let it and you've got to try to contain it, for your own good and the kids in your class" (18 -1)
	• persistence	
	• motivation	"Even though the county do offer workshops, etc. it's always after you've done the full schedule and unless it's right on topic that you're doing it's hard to be motivated to actually go to them. So, and sometimes the best PD is rest, you know where you really get energized and we all have home lives you know there's that going on outside which you have to stay on top of as much as you can to stay married." (16-1) You have choice. Which in adult education, if the adults don't have choice they're not going to buy in. I think the idea of people forming their own PLC's based on interest is very, very strong, because, again it comes back to interest… the more interested you are, the more engaged you are, the better you remember. It's just… better." (10-1) ""So it's, it just frustrates you that you can speak as much as you want to speak [at or about PD sessions] but no one's listening. … Change for change sake doesn't help anybody and we always don't have to change things. And progression doesn't always mean change. There's other ways to progress aside from throwing something out and starting something new. That's not necessarily what progression is."(13-1) But it it s the seeing that this is my own goal and I get to work on it and I'm seeing it for myself how I'm making progress and how I am

		moving myself forward. Because I want to, not just because I'm told to." (7-1)
Dedication		
	• involvement in work	"As teachers we are so worried that we are doing things right in our classroom, we want to do best by our students, do best by our school and areas of weakness" (6-1) "Sometimes I would, you know, just barricade in my classroom, hide." (12 - 1) [I] have to run from this class to that class and then it's coffee break and then back in and you've got to sit and listen and, that's when I feel sorry for the kids sometimes" (14-1)
	• enthusiasm	(Last year) "Not much actually pushed me down that road of passion. I actually felt last year that the passion had been kicked out of me. Kicked out of me." (6-1) "There's a lot of review stuff, where I'm going to show you fifty things in like twenty seconds and good luck catching any of it and then there's a lot of stuff where it's so specific that I know it doesn't apply to me and I feel like those are my only two choices" (5 - 1) "It was really hard when you don't really have anyone to talk to… I found it difficult that I was not able to sit and meet with people and show them things and talk about those" (20-1) "It would be really nice if they were worthwhile instead of… I just feel like they're tossed in there for the sake of an ATA agreement or whatever. (5-1) "It's kind of, it's an obligation I suppose. That time is built into our timetable and we're expected to do it and fair enough. Is it as useful as it could be? No. So it's kind of I suppose a necessary evil. I try to be open-minded and learn things and I've seen some great sessions at Teacher's Convention, but it's hit and miss, really hit and miss. (18-1) "I was so excited about self-directed, because I feel like, especially for the last two to three years, I've been basically doing all of my own PD on my own time anyways and like I said it's not that there's not sessions that I want to go to, but like when you have to just choose a session to choose a session, I don't see how that is spending your time wisely." (20-1)

• pride and inspiration	"When I see the work that teachers do with kids, I'm inspired by that, because teachers have very complex work. And to see how hard they work and their passion for their work, that inspires me. (7) "Oh, so I'm just crap as a teacher? So I don't want to come away feeling like that and a lot of the time, that's what I come away feeling like — like I'm not doing enough" (13) "I can only enhance my teaching by trying new things and if I am fearful of getting slapped down, reprimanded, for every failed risk, then I don't want to take risks… I become stagnant." (11 -1) "Sometimes I would, you know, just barricade in my classroom, hide." (12 - 1) "Well, now I know what all these things are and oh my gosh and how do I deal with them. And I think you're more flustered after than when you first walked in" (14 - 1)
Absorption	
• immersion in work	"I get very disappointed because what is being provided is so beneath where I'm at … so, I get very frustrated. And I patiently sit through it and nod in niceness and answer the questions, but it's not particularly helpful." (6 - 1) "Typical professional development activity… show up early, the session starts late, the coffee is bitter, I'm impatient and bored because the person in front can't articulate, has little confidence in what is being spoken to and typically speaking, despite what was promised in the description, has very little to do with my professional practice" (1 - 1) "If my presence could have simply been a tape recorder, I did not professionally develop" (11- 1)
• time passing quickly	

POST-INTERVENTION DATA

SUBJECT	
Theme	Supporting Quotes
Need to adapt to less regulation	"I'm so used to my day being divided into manageable chunks and to have to organize myself was tough" (16-2) "I feel like some people are not really sure because they've never really had the choice of doing their own professional development they're just so used to doing whatever the school wants that's what I do. I'm mean, if that's happened for the last 30 years then I'm sure you're not constantly thinking, well what's my professional development going to be, vs. what' the school's professional development going to be and kind of incorporating yours into that." (20-2)
Professionalism	"for those of us that believe in the professionalism of teaching, you shouldn't need Big Brother to be watching over your shoulder to do what's right" (6-2)
Different learning styles	"I'm more random abstract and a couple of my work colleagues who are more gung ho are more anal retentive, in a good way. You need both" (16-2) "we all have different strengths and weaknesses and we complement each other well, so for me that was a big reward. The whole year was just coming to work because I enjoyed it" 10-2

RULES	
Theme	Supporting Quotes
Clear expectations needed	"I think if we have those parameters that say, there are some things we need to do as a staff … and make that clear. And so it's a little bit school, it's a little bit you. But still at the same time the you part shouldn't be that different from the school anyways" (7-2) "I guess having a clear guideline of what's a reasonable thing to be doing here and what's not a reasonable thing to be doing here would be good." (5-2) "I think there was a little bit of confusion on the school level. Like I think I understood what you were saying pretty clearly but at the school level there was a bit of confusion as to well, if I'm doing this instead, am I supposed to tell someone? Who am I supposed to tell?... I don't want to look like I'm slacking off or not doing anything. I want people to know that I'm active but it's hard to show that when you're just in the science office for eight hours." (5-2)

	"You know I was wondering last year when one school said, we're going to be a hub for this or a hub for that, how is that different from the self-directed, because teachers could still sign up for that as long as their principal said yes." (7-2)
Wary of administrative disapproval	"If you're shot down once or not listened to you may not want to talk/ask again" (20-2) "Sometimes I think we put boundaries down that I wish we could take away. Because if we're scared we're going to get into trouble, then we're not going to push those limits…I'm talking being creative and learning stuff, right? And trying new things, and having things fail in our classroom" (3-2) "I feel like there's always a bit of guilt when you are not doing exactly what your principal maybe wants you, or, not that they are being like that, but just because they're the central authority. You automatically assume that if you're not on the right track they're watching you, you know." (5-2) "I worry that… the few that ruin it for the whole…. Or it's going to be super-monitored where we have to make this report about exactly what we did and that kind of stuff, where always having to answer to someone. I mean, I think there has to be some accountability… but I don't want somebody constantly coming in and checking over my shoulder and — what are you doing?" (20-2)
Scheduling issues	"If we're going to take this on as a division, what we ran into as issues was the scheduling of other people's professional development." (4) (ideally?) "When professional development is required, you don't have to wait until there is a school-based day or division day or teacher's convention. That it could be as required… timely."(17) "It would be great to come, love to come, can't come." (4)
Directed PD still desired	"there are some times when we need to have everybody in the staff together because there's some things we all need to be on the same page about" (7-2) "I think there has to be some group things that we do, regardless of whether you agree with it or not, because you have to be a team. That would be a challenge I think." (10-2) "To say that I don't like organized events is not true, OK? Because I do enjoy those, I enjoy the camaraderie, I enjoy it for, sometimes just looking through the list of stuff… ho! I didn't even know that was a thing! I want to go see that." (6-2)

	"More control, yeah. I feel like there will continue to be district-wide PD and all that sort of thing and I think if people have the option to opt out and do their own thing instead, I'm hoping that that doesn't kill the district PD…. I was hoping that it would sort of drive it in the direction and make it more useful." (5-2) "Maybe if principals are talking to you and say OK, what is it that you need that when they go to their principal meeting that maybe they could take all that information and then teachers who are interested in working on this in grade 2, and grade 12 teachers who need this can organize things because, I don't think that self-directed PD should completely eliminate some sessions that we've done in the past. That's the only danger, right?" (9-2) "On those days I would meet with _____ and talk a little [subject area]. Try to just tweak lesson plans and labs a little bit. So that was good, I liked that. I don't know that I could go one hundred percent to that [], I do see some value in going to sessions at the school and the structured PD from above, so in my mind, I think a mix of the two is good. I don't think I would be one hundred percent happy doing either or. I like the mix" (18-2)
Past experiences influence willingness to participate in PD	"If people aren't doing something, it's because something has happened to them along the way. And where I've stopped giving, it's out of lack of support, overbearing restrictions, or I've just been too beaten up and I'm not willing to give anymore. (12-2)

TOOLS	
Themes	Supporting Quotes
PGP use for SDPD	"I can have on paper how things are going to go and how I think they're going to go, but something will happen in the first quarter of the game, you know, player goes down, reffing changes, and I'm sure that, although I haven't looked at my growth plan for awhile, [things] sort of popped up second semester" (11-2) "PGP is just there. And for me, I don't even really look at it until I go and reflect at the end." (10-2) "That would be interesting, to now go and see what was on yours and what did you do and if you didn't meet that goal how can I help you? Or what did you do that I was inspired by? That's who I would… because I don't really have anyone here, right?" (speaking of finding a PGP buddy in her subject area) (12-2)

"I had to do my PGP review the other week and I was looking at my goals and they shifted entirely over the course of the year. That's one of the reasons why I resent enshrining stuff like that at the beginning of the year because there's emergent demands and for me to be somehow bound by this document… that's been, really, written in water." (1-2)

"It would be nice to even with a fellow teacher maybe talk about your plans with each other or try to, not necessarily hold people accountable to it, but just discuss and say hey did I actually do that or not and sometimes that's hard to evaluate for yourself" (5-2)

"It just seems, OK, get [PGPs] in and then they disappear for 10 months and then it comes out until you get your review… those professional growth plans are a living thing that ongoes throughout the year and need to be revisited on a regular basis. Maybe encouraged to do that, to change, refine, whatever" (16-2)

"They seem to look really good on paper, but realistically, can you accomplish that?" (17)

"I think the only people who will do it (SDPD) are the self-motivated people. I think there has to be, either through the PGP, there has to be some kind of accountability of this is what you did, without it being Big Brother registering… but if the accountability can br shown through the PGP then I don't see it's that onerous or that different from what we're presently doing… to me that should be enough of a justification, this is what I did."(6-2)

"I think there needs to be in professional growth plans, and I don't know if this is the way that things are going to be happening, but there needs to be that flexibility in there, that carpe diem, right?" (7-2)

"Everything we got to work on was something that I was interested in, or something in my PGP, or school goals that we had, so not I wasn't disappointed." (9-2)

"We formed a community, and then we started doing our professional growth plans together… and then when I got a sense that no one was really caring about it, or it didn't matter anyways, then I got really simple…. This year I put more effort into it… and I would like the chance to de-brief, but voluntarily, like I would like to have, I would like to choose my group." (12-2)

"Maybe a discussion with someone you trust… what if you didn't meet your goals?... and you feel kind of guilty and that's kind of a personal

	thing, you're kind of laying your guts out there for someone else to see" (18-2)
Accessing and creating resources	"the biggest thing is allowing teachers to access the resources that they need for their students… just be able to have that flexibility to be able to reach their kids the best." (2-2) "Working in your environment, not having to go somewhere, so you have all your resources, you know where everything is, what it is, how to find it and working with colleagues so you can kind of mash your brains together and having sufficient time." (8-2) "We kind of set a goal for what we wanted to do throughout the year and every time we had a PD day we kind of got out our materials and worked just as hard as we could."(9-2) "To get together with others, just the resources, the people, the time to do it, trying it, going back to those people and saying what worked, what didn't work." (14-2) "I got a lot of stuff together, but getting resources and to sift through and to organize it and reformat it, because it comes from all different sources, I didn't quite achieve that… I've got binders of stuff, but didn't end up with an end-product." (16-2)
More work	"In the end it might end up being a very big piece of professional learning, but there's manageable chunks keeping in mind school schedules, personal schedules, and just life." (7-2) "Holy crap this is going to be a whole lot more work to be self-directed, and then to find things to kind of slot into yours." (6-2)
Time and money as barriers	"Time, money and flexibility please and thank you. I would very much appreciate having an allotment of PD days that I can take when I need to without feeling the guilt of being out of my classroom." (1-2) "money was a thing that I have to figure out and the other thing is just finding things sometimes in the area that I want to know more and find someone to teach it to me or I can learn it or do whatever." (3-2) "One of the other problems is when that PD is offered. And I know we do our calendars but then we have our PD days in the second half of the year. People are tired, they're winding down, we're planning for next year." (19)

Where to find what is needed	"You need that 211 that says OK, this is what you need? Here's where you go." (3)
Teachers as leaders	"Probably _____ taking the lead… sort of a leader. Not that I couldn't have done that myself, but it was the first time and you're kind of getting used to it and not sure what's kosher and what's not." (5-2)

"I know that when teachers do that [go to conferences], and they can go see something that they're so excited about and they bring it back to the school, it changes practice and theat's what we're all about." (10-2) "Because if your top [leadership] is not into it, it's hard to come from the bottom up." (19)

"Don't waste my time showing me the obvious, get me to play. And then walking around, roaming. Look at that, what's working, what isn't, why?" (1-2)

"Well, you really emphasizing and getting the ball rolling in the system certainly helped, a supportive admin helped." (16-2) |

COMMUNITY	
Themes	Supporting Quotes
Collaboration	"There was a lot of collaboration and collegiality, that had been there but it was more pronounced, and at least it was more visible insofar as I could tell. And at the same time just seeing that excitement of people realizing, hey, I'm teaching this course, I haven't done this before and I can do this. I'm capable." (1-2)

"When the teachers, when they're working and they're collaborating, and honestly, the one day, you should have seen, the Grade 3, 4 and 5/6 teachers, they were in the library, I think they had stuff piled on every table in the library… it was truly a sight to see." (7-2)

"It was nice to finally get that community… I think I somehow transpired that community into [my] class… Grade 11 kids don't talk about community, that's not even in their language. And yet they say, we found community, and it's because I found community… This group got it to another level." (12-2)

"Just once a month to meet with another school, just to get ideas and stuff like that so ideally just having a little bit more consistent time." (2-2) |

Purpose/passion	"It needs to be purposeful for you and for you to collaborate with other people, so purpose, it basically needs to be useful in your career. And it needs to have a purpose, a job, relevance. Not airy fairy stuck in a room, and a smelly room." (8-2)
	"When we had the option to do this, it was like, finally, like it was a breath of fresh air, it was… Ok and not only will I get to go to what I want, I'll, if that's not offered, I'll create what I want. And I know others are looking for it too because I get phone calls and emails all the time through teachers around the province asking me questions…I think I've found my passion, right? Like I think I've found my… I have all the answers, they have all the questions and it reaffirmed my… how far I've come." (12-2)
Connecting with colleagues	"Consulting with two colleagues from _____. We shared materials… this was reciprocated because I had already sent them stuff in years past. But it was a huge reward to be around the district long enough that I have contacts that I've never worked with, but I can still email them and get materials within 24 hours." (11-2)
	"And we got our books together and we laid them out and, you know, it was wonderful to see how those kids are going to grow… So I think working together was wonderful." (14-2)
	"Consulting with two colleagues from _____. We shared materials… this was reciprocated because I had already sent them stuff in years past. But it was a huge reward to be around the district long enough that I have contacts that I've never worked with, but I can still email them and get materials within 24 hours." (11-2)
	"I realized that online learning, although there may be a big future in this I need the interaction with people" (7-2)
Similar interests	"Having staff that are interested in the same thing helped me a lot last year because then we were able to work together to create resources and even bring that to the principal and when there's more than one of you who's interested in something then bringing that to the principal and letting him see that, yeah, maybe this is something that we can do together as a staff. That happened last year too." (9-2)
	"I put together one where I phoned most of the people in the division [who teach construction] … and we shared a bunch of ideas. The other one I participated in for self-directed was with the junior highs… what we're going to do high school to junior high to articulate what we're doing. So their skill set mateches and we can provide something back to them." (4-2)

	"The opportunity to work with other people who do what I do, Period. When that opportunity comes up, take it right? You can always have people cry, well, we're doing this and it's not germane to me and what I do, well, here, here's an opportunity to do it, Great. Yeah."(4) "Talking to other professionals who had experienced that, the exact same thing that I was experiencing at that point or who are much further ahead, was beautiful. And contacts, I can get them on Twitter or message them or phone them right now or get them in my new school if I want to help us out with that journey, so that was really good." (10-2) People want to get together and form a community of learning. And now I have somebody… because I've been an island my whole career." 12-2 "and our school is doing this, or half the staff is doing this, we might get to a more cross-fertilization of ideas." 7-2
Student benefit	"I somehow transpired that community into that class… grade 11 kids don't talk about community, that's not even in their language, and yet they say, we found community, and it's because I found community… this group got it to another level." 12-2 "we got our books together and we laid them out and, you know it was wonderful to see how those kids are going to grow… so I think working together was wonderful." 14-2
Made contacts	"Contacts, I can get them on twitter or message them or phone them right now, or get them in my new school if I want to help us out with that journey, so that was really good." 10-2 "What I would look at is giving people, affording people the opportunity to work within a community of practice … but make sure the people are connected and that they have the opportunity to work together if they choose to… then — here's everybody's email and make sure you know each other" 4-2
Taking initiative	"I put together one where I had phoned most of the people in the division, we had seven (you were here one of those days) we had seven of the construction-type teachers, construction or mixed media teachers in and we build a bunch of jigs and shared a bunch of ideas… the other one … was with the junior highs, we were over with _____ and a bunch of us got together and worked on what we can do with the new CTF, so what we're going to do high school to junior high to articulate what we're doing. So their skill set matches and we can provide something back to them." 4-2

Consistent meeting times needed	"I would love to have like monthly collaborations with either, whether it be the staff at the school, and ours is really tiny so I say that but probably in bigger schools it would be grade group kind of or division meetings. But also like just once a month to meet with another school, just to get ideas and stuff like that so ideally just having a little bit more consistent time, whether half days here or there, so instead of a full PD day like what is it every three months, lets do half a day every month and just kind of have time to check in with everyone and see what everyone's doing and get those ideas and the collaboration going, and the talk, because sometimes you're too busy to say hi let alone share the great ideas that everyone has right? So that would probably be my thing." 2-2 (Question — What barriers have you experienced in PD situations?) "Specific barriers, there's always the time issue. When you work a semester of four straight there is no time for collaboration for any of you. Sort of between the marking and the lesson prep that's about it, and even though the County do offer workshops, etc., it's always after you've done the full schedule and unless it's right on topic that you're doing it's hard to be motivated to actually go to them. So, sometimes the best PD is rest – you know when you actually get energized. And we all have home lives you know, there's that going on outside which you have to stay on top of as much as you can to stay married…" 16-2
Majority will be productive	(Question: Describe the perfect professional development situation) "I would prefer if we are doing something as a staff that it only be maybe half day. Letting professionals be professionals. Not having to pander to the lowest common denominator. We know that there will be people who won't work so therefore we have to have a full PD for everybody to make sure that those five or six people will do some work is not an excuse that 25 other people would accomplish great things. I was pleased with this year. So continuing with it… and then when we do have full PD days, let people do what they want… I don't know if anyone has actually gotten in trouble for sitting in the cafeteria for an hour just talking, but we are a lonely profession. We really are." 11-2
Needs/Interest areas are diverse	"For myself, I don't think professional development should be singular. And I don't think it should be site-based but I do think it should be area and content based. For me. So what would be perfect for me would be an active participation, making contacts with people who teach in the same areas. 4-2 "For me, I like to have some time to collaborate with other teachers, like, especially say there's a certain project that we really want to get done and we're really excited about and want to focus, then there's other times where there's maybe a book that you really want to read and that's something you want to read on your own, so I think that

	one's kind of flexible kind of thing depending upon what you want, you need, for your professional development on that day" 20-2
	So, that is my wonderment, of what will happen with our ATA two-day convention because I think that it is impossible to plan K to 12, rural and urban, English, French, German, second languages, counsellors, consultants, school leaders, teachers, there is no way you can plan for all those people in two days the PD that they're looking for." 17-2
	"Having staff that are interested in the same thing helped me a lot last year because then we were able to work together to create resources and even bring that to the principal and when there's more than one of you who's interested in something then bringing that to the principal and letting him see that yeah, maybe this is something that we can do together as a staff." 9-2

HIERARCHY OR DIVISION OF LABOUR	
Themes	Supporting Quotes
Administrative support crucial for SDPD	"I never felt like administration kiboshed anything… in previous years they have, so having that support system [and] knowing you're in the building really helps because if I have a question, I'll just ask Kerry… I think administration is the biggest key. Because if they're going to make a big deal about you missing a certain thing… [principal] was all on board… ____ was very good that way to try and make it more of a team effort and I think that openness, that just helps." (6-2)
	"[Principal] has taken stuff back to Central Office and gone, look what my teachers are doing." (6-2)
	"Everyone is always willing to let you do what you want, and they may or may not be willing to help you do what you want. So I felt very supported with they said yes, and how can we help. They asked how can we help?" (4-2)
	"I think it's important to make sure that administrations understand that people directing their own professional development is a reasonable thing to do. Right? And that was the experience here, very much supported by our administrators, no question, you know, what is it you're doing, how can we help you with what you are doing?" (4-2)

	Question: Do you think you have more control this year over your professional practice? Answer: Yes, I guess I would say that because, for a few reasons. Because with the PD we've been able to select for ourselves, it's giving me the time to work on things to bring back to my classroom, to then use in my classroom, which isn't always the case with PD, obviously. So that was a major factor in it. Our principal… _____ very open-minded and flexible and wonderful to work with. ___ not the type of principal that comes in and tells us how we need to run our classroom, right? He just wants us to run our classroom as best as we can. That's also been another factor contributing to that." (9-2)
Confidence in administrative support	"The mere fact that I'm not hearing bad stories would tend me to believe that alright, anything that I try, within reason, if it's professionally responsible, would be taken as an acceptable practice. So I don't know if they did anything so much as what they didn't do." (11-2) "Having that confidence that you can approach [the principal] and talk about professional development things that you are interested in and know that you won't be shut down." (20-2) Question: Why did you decide NOT to participate in SDPD? Answer: Because I didn't know if I was going to get in trouble. With one person's opinion of what professional development might not have been administration's idea of what professional development is. To say I sat on the computer for an hour, there are people who would probably stop listening and say, well you didn't grow. I could have been reading articles, watching videos." (11-2) "Just the freedom to know that I'm allowed to do that and I'm not going to get in trouble for not showing up to a mandatory PD, yeah and so collaboration, I worked mostly with _____ on [subject area] and I worked with the region with _____." (15)
More trust	Reacting to PD that is, in their view, meetings that could be done with a memo: "Trust people! We're professionals… the people leading us need to re-examine what our actual priorities are" (1-2) "I can see how that might go south if you had a principal that was maybe a micromanager and wanted to kind of know exactly what you're doing every minute of that time, versus I felt that our principal this year trusted us to use that time for good and it was appreciated, I appreciated those days, that time." (18-2)

	"I have to trust them too, so that's the whole team-building that we do in the school right? We build relationships, we build trust and be build a team… I think [SDPD] increased trust and probably made them feel more valued, and made them feel more like a professional…. In some of the schools where it was difficult, you know they feel less valued." (19)
	"We just keep adding to the pile of things we need to do as teachers and whether it comes down from the province or comes down from the school, there's just always lots to do and sometimes it's the needs in the classroom that kind of exhaust you or the curriculum, or whatever it is, there's lots of barriers…" (8-2) Reaction to being promised PD funds and then not getting them: "Now granted, there was of course that entire schmozle with the PC's, the provincial election, the freezing of funds, so there are variables there that can't be accounted for, but at the same time, if the money is already budgeted, the money is already budgeted." (1-2)
Finding common ground	"We need a common philosophy in our district. And understanding what that philosophy is. It's not saying that you get to do what you want if you run it by me first or I get to choose or… and for some people that's hard, right? It's hard to let go." (19) "There was one barrier [to SDPD] … I really felt, and this is an interesting thing, that I'm not on the 'in' with people in charge of [my subject area] in this school division. There's a hierarchy and I'm definitely not on the inside." (6-2) Question: Were there barriers to SDPD? Answer: "I'm going to say no, not this year, but the reason is because what our school was doing really lined up with what I wanted to do. I think if I wanted to do something really different from what our school was doing there would be more barriers." (10-2)
Principals not the ones to plan PD	"[Principal] wasn't worrying about stuff as much for us and he could see that the staff was doing good things and so that took pressure off him to plan PD… because principals, that's not their specialty, I'm sorry, and often times they'll be scrambling, oh, I have to do PD and I don't know what to do with it, so let's do this and this…what a staff needs or wants." (6-2) "One thing that I have to say is that is that I felt a lot less pressure in terms of professional learning this year. Because in the past it's been, I'm responsible for planning it, for making sure it's done, and that we're all here and that we're doing it. Whereas this year it was — well

	this is our professional learning day, you have your growth plan, and you're working." (7-2) "There are some principals that are still deciding, or they have to and this happened this year too. Some teachers, they have to tell their principals and get their OK to do that. Well, why should I say that's OK for you or not OK? It's not up to me. You know what you need more than me. Maybe, you know, if we have something that comes out that we need to learn I'll say guys we need to somehow learn this as well, but for the most part, if people are going to choose their own PD, I shouldn't be the one saying yes or no." (19)

OBJECT: SDPD	
Mixture of SD and directed PD	"If there's something cool and it's XXX or XXX (schools) or whatever and I can drive over there for the afternoon and work on my own thing in the morning or something like that, that seems like the best. And then you'd have ultimate control really, because you'd have useful decisions to make and time for yourself it there's not anything that you feel would be beneficial" (5-2) "I think having a centralized location for professional development situations, you know, presentations or speeches or demonstration sessions or whatever it happens to be is a good idea. And it should definitely be in one place so that you can have some networking and some social contact with your fellow staff. But I think maybe… I think in the past mostly it's been sort of the four blocks, almost school-day type of thing. So maybe just having just a morning and an afternoon, two session thing where there's a bit of focus on a specific subject area or something like that. And then with the easily accessible option of doing your own thing somewhere. And whether that's … there's all these rooms with computers in them that you can work on if you want, there's small groups you can meet in a whole bunch of different places, the library's open, that kind of thing, while there's sessions going on elsewhere, I think that could be really useful… having the choice would be the best I think." (5-2) "I think a split between kind of structured PD build by the superintendent and his staff versus time for our own personal stuff. I don't think either or is the way to do it in this day and age. You can't be all structured or all unstructured. I think there has to be a mixture, what that mixture is? Let's start with fifty-fifty and work from there… People who organize it, bring the speakers in and that, how do they define what's good? What people want? Maybe the superintendent and his staff can ask the teachers what they want." (18-2)

| Relevant/needs based | "I think, especially for those people who were doing the self-directed, because they could work at their own pace, and they could work in an area related to their learning that they were really passionate about, I think that went really well." (7-2)

Question: Describe the ideal PD situation: Answer: That it is meaningful for them. That it is something that is moving them ahead in their practice, that is developing their skill set, that is going to make an impact on the work that they do with kids. That they have control over it, that they want to have control over it. This is a new place that not everybody wants that necessarily, so we're still moving in a direction that is not imposed, and you just sort of maybe like it and maybe don't. But definitely that meaningfulness that is geared to — this is what I need to improve my practice." (17)

"I think it's perfect, and the reason why I think that's perfect is because it has given us a day that we normally would've been doing other things but has stopped and said what do you need to do? And I think that's exactly, well I know that's what we did. And I know that we definitely use the material that we had been planning for it and it has only bettered our classrooms. So I think that having that time, for the PD days, it's been amazing." (14-2)

"I had a lot of fun this year playing. But all of it was relevant to what I was doing, right?" (3-2)

"It's frustrating when you're trying to work on something [together] like that and you don't have the time to just make it the way you both want it because we both have similar goals, but when it's me working on something and her adding something later and me adding… I don't necessarily know what she was thinking and she doesn't know what I was thinking, so it's nice to have just a couple hours, a couple of hours in a row. And that's the big thing, right?" (5-2)

"It felt like one of those things that you've been meaning to do since whenever I started teaching _____, like five years ago or something, and finally we got it done, you know? It was good, yeah. Consistency is always good." (5-2)

(Question: Sum up what you think about PD now) "It has to be purposeful for you. It has to have a purpose in your life, it can't just be useless information shoved in a filing system. Yeah, it has t be purposeful, it has to mean something for you." (8-2) |
| Diverse learning needs | "You know we all have our own experiences and we all have the things we like to do, but just because I like to learn this way doesn't |

	mean that you do. So we shouldn't be judging our people, let them take chances, let them learn, let them go. Not everything is going to work and that's ok, but they'll learn from that too." (19)
Flexible format	"My best PD occurred this year when I sat down with _____, _____ and we worked on [a type of technology] stuff. The three of us were just able to sit down, play with the program, say what about this, how does this work, can we do this, where can we do this" (11-2)

"I was working [on SDPD], but the other group, they were working on grade 10 resources but just being present they sort of chipped in when I mentioned something and I added to their conversation so it wasn't just exclusively on what I was doing, it was that sharing which was great and we have a few younger staff members now who bring that energy and those different ideas and I hope I can bring something to the part now with my experience and the things I've tried, so it was good synergy there." (16-2) |
| Not forced/mandatory | "I think just having that time. Knowing that time was there. Not being forced/coerced into going to sessions that were not in my subject area or that I thought were just irrelevant or a waster of time. Because we've done that in the past, we've had to go to sessions on this or that and you're kind of rolling your eyes through the whole thing and thinking of all that work you could be doing. You know I think there's a risk there, you can't get too focused on the minutia of you school day and lose sight of the big picture. You know, being reflective and trying to look at the holistic nature of your whole career." (18-2)

"I liked self-directed PD, not having to go to mandatory sessions that are unrelated to what I'm doing or the ones that are related to what I'm doing is basically the same as stuff that I've done for 10 or 15 years. So, I liked being able to work with _____ and integrating [subject areas]." (15)

Question: Describe the ideal PD situation for leaders: "I don't want to go to something that I feel confidant in or that is being imposed on me but that I have the opportunity to choose my learning and to schools how I'm going to do it." (17) |
| Desire to continue | "I've enjoyed the opportunity to be more self directed. This certainly is a work in progress but I see huge value in it, definitely and it's something I'd like to continue. I learned a lot from the first year." (16-2)

"I think it [SDPD] is going to grow over time. You're always going to have people who are going to take advantage of it, right? No matter |

	what we do. You have regular PD… you have convention days, there's some people who don't go to convention. They stay home, so no matter what you do, you're always going to have those people. But I think that we have to work with those people who are excited about it, and it will grow." (19)
Choice	"You should, as a professional, know what you want to work on or where your strengths aren't, so where you want to focus or maybe where your strengths are and want to become even stronger and become an expert in that area. Either way really is bettering yourself and you're the best judge of where you need to better yourself because you're the one who's going to put that effort in and a lot of the time with professional development if it's not the things that you get to choose, it's very… you're not going to put that effort into that you would if you had your choice of what you wanted to learn." (20-2)
Responsibility	"I think it's kind of what you make it" (18-2) "I love the self-directed, I think it's wonderful and I think that's how they should go, although I also feel that there should be some sort of checks on that because I could see people taking advantage of it or not using it in the best way possible. Like even for myself this year all the PD I did was, you know, I worked with the teachers here and we got so much done it was wonderful but then at the same time I always question myself, well maybe I should have gone to some other PD sessions too… that was my only concern, because like I said it was so wonderful and I think I got more out of this year than a lot of other years, but at the same time I started to question myself, like should I have done different things. (9-2) "But I think it is so important to acknowledge that people are coming at PD, introductory to so skilled and knowledgeable with everyone in between there. And to me I think that is the hardest thing to planning professional development and if you're doing your own, who do you find that's with you? Where are you on the continuum that you're trying to find somebody that's not, the they're not at the same place you are in your learning. But there is so much out there to learn and picking and choosing where are the places that… because you can't do it all. And so, prioritizing what you want your learning goals to be for that year [would be important]." (17)
Unstructured/Wasted Time	"You know, bells define our day, and with organized PD, what you're used to, it's all organized for you. It's a matter of just turning up. If it's more self-directed, there's more wasted time, to be honest." (16-2)

	"I did find it more challenging than I thought it would be. To structure my time and use it well and not get distracted. I felt like a student again to a point. Yeah, I'd have more definite goals probably. You know, timeline, I'd have at this time I'd have this done." (16-2) "There was the odd day that they left us alone to do our own stuff that wasn't as productive as it could have been for me. But I didn't have a plan per se or self-directed initially, maybe if I would have that time would have been better used, but there was the odd day there that, you know, we'd have a meeting in the morning and then they'd leave us alone to do our own stuff that felt like it could have been used a little bit better. Maybe too much freedom, there's pros and cons to that, you make it, you know it is what you make it, so there was the odd day that I thought could have been better." (18-2)

GOAL: AGENCY	
Self-efficacy	
• can produce desired results	"I think just the PD time that we're given to do our own thing because I think it gives you more control…I think it makes me a better teacher for kids in my classes everyday, right? The best things for the kids in my classes is if I'm in a good mood, I'm well rested, I'm not stressed, I have time to do things. If I'm a basket case with things to do and no time to do it, that gets reflected in my efficacy as a teacher. You know? So, give me some time, I'm not saying you give me all that PD time that's completely under my control, but give me a little bit of time once in a while to just get stuff done and I will be a better teacher for those kids guaranteed" (18-2)
• can forestall detrimental consequences	"(do you think you had control of your professional practice?) "Yes I did, I really did and I enjoyed that. Because obviously after 25 years, I know where my holes are…I felt like at least I could educate myself on areas that I think are weak spots." (6-2)
Self-reflection	
• evaluates past outcomes and predicts future ones	(What does a self-directed teacher look like?) "One big thing would be that they have a clear understanding from themselves, so intrinsically, what they need to do to get to a certain point. Or vice versa, they know where they need to go and then they know what they need to do to get there. And maybe they don't have specifically every single thing, like they don't have I'm going to take this course and that thing but they at least have an idea that to get from A to B this is what I need to get there. And then, not just that they know what to do to get there, but they're working on getting there." (17-2)

	"Well, how I see that wrapping up, is that, ideally speaking, someone would have been keeping track of accomplishments. Whether or not that would be me as an individual, monitoring my own progress, me as a coordinator, monitoring the department's progress, whether or not that would be something in administration, who has been working alongside of us. But an opportunity to go look, here's where you started, here's where you are now, let's do this like a very simple math problem — what's the difference?" Pure and simple. Quantify that growth in some fashion. And I suppose someone is going to say, isn't that just a PGP annual reflection? No, it's not, it's not dumping it on an individual to sit down and write a multi-page document. It's about checks and balances and being able to point and say, this has changed — definitely this has changed." (1-2) "I know what my needs are. I know best what my students' needs are. I don't have the time to be inundated with extraneous objectives that don't enhance my teaching…So, I don't have a lot of time in life, so let me get to the heart of the matter fast and fulfill my needs that make me go home and feel more satisfied more productive, not frustrated, alienated, tearful, you know, resentful… I'm so done with that, and finally I think somebody is listening. And, so to self-direct is healthy and meaningful and necessary." (12-2)
• considers how power, identity, subjection and freedom interact	"I think it[PD] should be dependent on the person. I'm a very… maybe this is why I don't do well with administrators who micromanage. I flourish when you allow me just to go on my own and figure stuff out myself and, if I get stuck, I will come and see you. I'm not a wallflower, I will find out how to do it. But I don't like constraints of being prescribed — you will work with a partner. Yeah, but they're not interested in what I'm interested in, their weaknesses aren't my weaknesses." (6-2) "There's always going to be people that are time wasters or who don't always use the time to their best benefit, so, I don't really think we saw that here. I think we're all very gung ho about it and we're all very excited to kind of get the projects that we wanted to get done, done, right? Especially here, we go and learn something and then we come back and a) we don't have a great group to share it with and b) we have to develop it all by ourselves — so just having that time to do that, but I think that some, without structure and they have a place to go, they have to come up with it, they might have a hard time." (2-2) (Question: What did you find rewarding this year?) "I wasn't wondering if it was OK, I know full well what I need to do…[so] freedom. Freedom and opportunity." (12-2)

	"So you need a vision, you need checks along the way and even if just at the end of the year, you could talk… and there's that carrot piece, you know? If there's a vision for the district and the principal has a vision and then each, perhaps assistant principal is working with each department and each coordinator if working with the members, there's a lot there. But that overall vision for the school should come from the bottom. What do we see as being necessary? I mean the number of times I've been told this year that, oh, you can't do that. Why? Because we've never done it that way before. Ok, so we can agree there's a problem, but let's not remedy it?" (1-2)
Reflexivity	
• adapts to needs of members of group	"It's a very easy trap to get in to where if you're a person with a little bit of tunnel vision, you think that what you're doing is OK. And it may or may not be, so if you don't have the opportunity to have other people step in and look, and look to see what they do, then it's easy to pretend that what you've got is groovy and it may or may not be." (4)
	"What is it that helped me to pursue my passions? I think becoming aware of what they were… And becoming aware became part of, I guess, in collaboration with my colleagues. Just finding out that, oh, that's a possibility and I hadn't realized that before. And without that opportunity I don't think that would have happened." (1-2)
• emergent view of the social environment	"I just think it's very valuable to have that choice [in PD]. I mean we give our kids choice all the time, and we promote that in their projects and their learning and giving the capability of having ownership of their learning so I think that's very beneficial to give that to teachers as well, to trust them to learn the way that they need to." (2-2)
	(Question: Strengths of this project?) "Just the flexibility and the open-endedness of it. Choosing what is going to work for your program. What's going to work for you and what is important to you and what do you feel is not maybe developed enough in your classroom or in your grade or even in your school. What's going to work best for you guys, that's what I like. You're not having to be a square in a round hole." (8-2)
	"I think it's important that they [administration/district] understand hopefully that the work that people do is useful work. I can choose to accept that I want to change my practice if I choose to, if I'm in a large room and I'm just there as a body not changing my practice it's no different. So if I choose, even if I choose to waste my time that I've directed for myself, it's no different from sitting in a gymnasium for a full day teaching like a pirate if I don't go back and teach like a pirate

	right? So just a little bit of trust and understanding that people who do want to do better will and if you do take a dim view occasionally and you think people are not going to spend their time well, they won't anyways." (4)
	"I just think it's very valuable to have that choice [in PD]. I mean we give our kids choice all the time, and we promote that in their projects and their learning and giving the capability of having ownership of their learning so I think that's very beneficial to give that to teachers as well, to trust them to learn the way that they need to." (2-2)
Intentionality	
• plans to put collective action into place	"I look forward to working with other teachers in my school and then we can kind of use our brains and work together and build our own system and who knows, maybe it will go district-wide, you know?" (8-2)
	"Now that I've done the in-school thing, I would love to do the multiple schools or get some grade group things going. I was actually talking to my principal about that I might try to start a group with (other school) and maybe some (other school) teachers and stuff like that because I have a bunch of connections and we are all like, oh we should share resources, or oh we should od this project together or we should get our kids to Skype, but we never have time to sit down and figure out the logistics of it. So, I'd love to kind of, you know, I did the school setting, I'd love to do the division kind of thing now and maybe go from there and see how that goes." (2-2)
	"The data on the PGPs is quite clear… there was a real trend … I will say that for people who are doing self-directed work there is much more of a focus… that is the biggest difference between last year's and this year's. I feel as if this year's growth plans are really intentional" (17)
• ability and need to act	(Question: What would your ideal model of PD be?) "Oh, my ideal is what this year was, that if they were to ever go back, I would be sick on every professional development day or book appointment...Without anger, without resentment, without frustration, without… I cannot see me going backwards now. I really can't. If I don't have a say in what I do, I can't see myself staying in this profession. If my hands are tied that much and you don't trust what I'm doing and you don't have a sense that I have the responsibility, then there's no point in me working here. I'm done. I think that would be the writing on the wall… That would be one thing that would put me into resentment. And that's a strong word." (12-2)

GOAL: ENGAGEMENT	
Vigour	
• high energy	"It [this year's PD] was great. To be honest with you this past year was probably the most energized I've seen people as far as professional development goes. We basically sat down a week, two weeks ahead of time and we were able to, of course, respond to emergent demands in a meaningful way and in a timely way, follow up on things that we had already established since the last PD day. It was great. (1-2) "It's easy to become stagnant, it's easy to not get what somebody else is doing in the division that's phenomenal. And why don't we get the opportunity to see it? So PD largely for us, you can look at notions, but you really need to share what you're practically doing, that's where the excitement comes in the class, that's where the good experience for the students come, that's where they get excited and motivated. So that's the best part of it [this project] for me." (4)
• effort	"I really feel that the most important thing about professional development — it has to be something that you are passionate about. It has to be something that you are willing to put your full effort in to become better, or else, you're not going to. It's just like trying to make a kid like school, you can't make them like school, but you can encourage them, by giving them choices and helping them feel like they have a say." (20-2)
• resilience	"I liked using some of the skills, I'm starting to get to where I can see that I can make a difference … and that I have the ability to change, not just single kids' lives… but the path for the school, right? I can help build resiliency in the school or in a classroom or in… and that was fun this year, to get myself settled into the position enough to start pulling some of those pieces together. So there were some definite wins this year for things like that." (3-2)
• persistence	
• motivation	"If we want students to come to school everyday and really enjoy their learning, then when we are engaged in professional development, we should also enjoy what we are doing. Because then everything else, you're going to be self-motivated, you're going to be interested, you're going to want to finish it, you're going to enjoy it you're going to see the rewards in it, you're going to see how good the outcome is and

	you're going to want to do some more. And it's that sort of effect of, it growing and growing and growing." (7-2)
Dedication	
• involvement in work	[This year] there was good stuff happening in the building, outside the building, at other schools — some people even went to other schools outside the district. There was a lot of things happening… I think they got more out of it… at least they got what they thought they needed or wanted to do. So their engagement was probably better and if ti didn't work, they owned it, right?" (19)
	"I loved this year, because I seriously wrote my professional development to fit my world, and so everything I did was relevant to me, to my world, to my profession. And I recognize that I have a drive for learning that isn't in everybody, but I think it is in everybody if It's something that they want to do. Right? And so I think that piece is the piece that I would love XX district to recognize is that we really do… they often say that you have to be a professional and you have to do to PD day, well, we are professionals. Ninety-nine percent of us are professionals and we do what we are told to do. Teachers are notorious for that as a matter of fact. And so I think if we had the opportunity to do what we wanted to do that there would be more of it and we would be more adventuresome and be more innovative and more willing to try new things…. Like I want to do stuff." (3-2)
	"I think this has breathed life back into my desire and ability to be a better educator… This was a far more productive, satisfying, accomplishing way of approaching it [PD] and everybody got way more out of it. I did, those teachers did [that came to this person's SDPD sessions], the kids did. If we were to go back, that might do me in." (12-2)
• enthusiasm	"I've really quite liked the working on our own for professional growth. It's been nice to work with colleagues, not having to drive to the city, not having information for an hour that you really don't use, kind of doing what works best for us, that's what I really like. It's been very helpful, you get more excited about things. Is it still work? Absolutely, but it's nice to be able to do something that's going to benefit you and you're going to use down the road for sure." (8-2)
	"Oh, I've just loved it [SDPD]! I loved having the opportunity to collaborate with like minded people too. And just that choice that we always talk about how when we give kids choice how much more engaged and excited they are about things, well it's no different with adults. I always want choice too, like everybody wants to have the choice to do stuff and I mean, I know that people say that, what about

		those teachers that don't do their professional development and all that kind of stuff but then I'm like, well you know what, there's always going to be a few. There are those who are going to take it by the horn and just go with it and be so excited about it and I think that's so awesome and empowering and I feel more empowered by my professional development this year and I feel a lot more confident and happy with what I've produced for my class and the time I've gotten to think and prepare things so that the kids… It's also helped the kids too because this year by focus was literacy … [and] I've been teaching them better because I've gotten better." (20-2) "Just accept the fact that people who are excited about what they do are going to get excited and hopefully they can excite other people as well. You know that's the big part for me." (4)
	• pride and inspiration	"It was good work. It was a sense of pride and accomplishment [this year]." (7-2) "I felt a sense of pride from them [the teachers this year], that they got that done." (7-2)
Absorption		
	• immersion in work	"It was the fact that we knew we had the afternoon. It was not oh you're going for one hour, it was not someone was going to talk to us, it was professionals sitting down and being able to talk to each other, without anyone… I did not feel like I was being watched. No one was saying — Are you working? I think it [PD this year] was the best that I've had for a very long time." (11-2)
	• time passing quickly	"… all these little nuggets, and people were just grasping at them and holding on to them and three hours went by, the whole day went by, and nobody was ready to leave. We could have still talked another hour or two. (12-2) So typically, we'd have the department coming together and more or less becoming a think-tank for the better part of six hours. I've never seen people take such a short lunch on a PD day before." (1-2)

Appendix 13: Congruence in Initial Thematic Analysis for Two Activity Theory Constructs (Pre-intervention data)

Critical Reader Themes for 'Rules'	My Themes for 'Rules'
TIME - lacking time to follow up/ follow through with PD	*Time as a barrier (not enough)*
TIME / Timely PD scheduling (issues scheduling PD; wanting smaller PD, more often)	*Problems with scheduling/logistics*
TIME Constraints as barrier to PD (busy lives / workload / leaving needy group of students)	*Time as a barrier (not enough)*
Money (Cost of subs, travel, conference registration, hotels etc)	
Prescribed / Dictated PD (previous PD)	*Prescribed nature of the PD*
Choice (Lack of relevant PD choices, desire for choice)	*Not allowed to do some kinds of PD*
Self- directed / Internally Driven PD	
Balancing Direction and Choice	
Team / Collaboration (as enabling PD)	
Frustration (lack of relevance, waste of time)	
Accountability / "Big Brother" (Concerns over appearing accountable)	*Trust — that teachers use the time given for PD*
Obligation (to undertake PD)	*Professional Obligation*
Travel	
Resistance from Admin, District, or others (Teachers needing Permission or being told 'no' related to their PD)	*Not allowed*
Not Knowing Options / Lack of communication	*Not clear boundaries*

Critical reader Sub-themes for 'Subject' (Teachers)	*Critical Reader Sub-themes for 'Subject' (Teachers)*
Relationship with Kids / Helping Kids (As motivator for teachers /t satisfying part of their job)	Dedicated
Time /Workload/ Commitment (Time investment and heavy workload / commitment as part of their role as a teacher)	Committed but tired and busy
Stress / Burnout (Related to theme above - workload /time commitment)	Committed but tired and busy
Community / Collaboration (getting support from others, getting out of the classroom)	Lonely (or isolated — preintervention only)
Change in Understanding / Transformation (A change in a teachers' understanding or thinking, a 'paradigm shift')	
Trust / Accountability / Respect for Teachers (Accountability / need to justify actions)	Sometimes not trusted to make professional decisions and as a consequence could be resistant
Practical PD (Translates to classroom as opposed to theoretical PD)	Practical in their approach
Organize / Time Management	
Success / Empowerment / Authenticity	More able to defend learning needs (post-intervention only)
Inspired	Passionate
Choice / Self-Directed PD (internally driven by self-identified areas of need)	Choice needed

Appendix 14: REMO and CAPS Ethics Approval

Date: June 23, 2014

Study ID: Pro00045563

Principal Investigator: Kerry Rose

Study Supervisor: Gregory Thomas

Study Title: A Case Study of Self-Directed Professional Development: Does It Increase Teacher Agency and Engagement?

Approval Expiry Date: June 22, 2015

Approved Consent Form:	Approval Date		Approved Document
	23/06/2014		Current form - teacher - Kerry Rose
	23/06/2014		Information Letter - Principal - Kerry Rose
	23/06/2014		consent form - principal - Kerry Rose
	23/06/2014		Information Letter - Teacher - Kerry Rose

Thank you for submitting the above study to the Research Ethics Board 2. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

Stanley Varnhagen, PhD
Chair, Research Ethics Board 2

Note: This correspondence includes an electronic signature (validation and approval via an online system).

CAPS (Cooperative Activities Program) Research Project Application

School District (Please choose one school district, unless multiple districts are crucial to your research)

☐ Edmonton Catholic Schools   ☒ Elk Island Public Schools (Sherwood Park & Area)

☐ Edmonton Public Schools   ☐ St Albert Public Schools (formerly St Albert Protestant)

Title of Research
A Case Study of Self-Directed Professional Development: Does It Increase Teacher Agency and Engagement?

Date Submitted – 06 18 2014

Proposed Start Date – 06 23 2014

Proposed End Date (Final Report) – 08 28 2016

Applicant Information (University of Alberta, Faculty Member)

Name: Gregory Thomas   Email: gthomas1@ualberta.ca

Faculty/Department: Secondary Education

(*If applying on behalf of student, your signature indicates that you have read this application and approve its submission)

Applicant Signature _____ Date _27 June 20_

*If this request is being made on behalf of a student, provide the following information:

☒ Graduate Student   ☐ Undergraduate Student

Student's Name: Kerry Rose   Email: Kerry.rose@eips.ca

Phone Number: 780 966 1275

Faculty/Department: Secondary Education

For Office Use Only

University Review: ☒ Approved   ☐ Denied   Date: _June 25/2014_

Associate Dean Research & Graduate Studies: _____
Dr Patricia Boechler

District Review: ☒ Approved   ☐ Denied   Date: _June 26, 2014_

District Representative: _Eileen Zimmerman_ _____
           Printed Name   Signature

The personal information requested on this form is collected under the authority of Section 33(c) of the Alberta Freedom of Information and Protection of Privacy Act for administrative purposes only.