PROMOTING AND PARTICIPATING IN TEACHER LEARNING AND DEVELOPMENT

by

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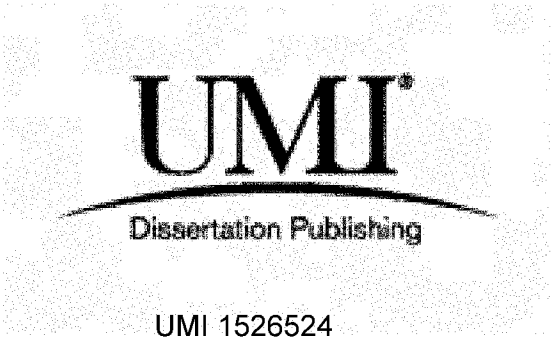
THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF EDUCATION
IN
MULTIDISCIPLINARY LEADERSHIP

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

January 2015



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ABSTRACT

This study examines the pedagogy shift in practice of teachers and principals when using a constructivist learning model with a focus on formative assessment practices. Five secondary high school teachers and five principals participated in extended focus group interviews to expand on research focused on how principals can strengthen teacher professional development. This study extends the research of Robinson (2007a & b), Robinson, Lloyd and Rowe (2008) and Postholm (2012) which support the necessity for social constructivist theory to be utilized when building collaborative professional learning environments with a sustained focus on transforming teaching practice. This study identifies promising approaches or strategies principals should use to create learning teams focused on improving student learning.

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ACKNOWLEDGEMENTS

I would like to thank my supervisor, Dr. Andrew Kitchenham for the patient guidance, encouragement, constructive feedback and advice he has provided throughout my time as his student. He responded to my questions, queries and writings so promptly. He guided my process and played a crucial role in helping me complete this thesis.

Thank you to the focus group participants who shared their insights. The passion for education and continual learning was evident throughout this process. The school district gave me permission to access these teachers and principals. I would like to thank Jill Jackson, for proof reading some chapters and getting me reengaged when I stalled.

I must express my gratitude to Ersilia, my wife, for her continued support and encouragement. She continually amazed me by proofing countless pages and encouraging me to continue on.

Chapter 1: Introduction

The British Columbia education community is looking at student learning in new and exciting ways. They are championing new ideas to improve learning. They are attending conferences, talking about what makes wise practice, and trying new strategies in their classrooms or schools. Many are participating in action research, taking ongoing learning opportunities, or belong to the Network of Inquiry and Innovation. They are focusing on improving student learning through formative assessment practices (Black, Harrison, Lee, Marshall, & Wiliam, 2004; Clarke, 2005; Earl, 2003; Volante & Beckett, 2011; Wiliam, 2011), learning teams (Hadar & Brody, 2012; Lieberman & Pointer Mace, 2010) or 21st century learning initiatives (Abbott, n.d.). In addition, the BC government is championing the BC Education Plan which states "The world has changed and the way we educate our children should too" (BC Ministry of Education, 2011, para. 1). These examples all express the need to improve student learning.

In my experience, this focus on student learning may look like transformation in both teaching and educational leadership; however, a large number of teachers still work in isolation, do not collaborate, and do not use formative assessment practices. Many principals do not know how to effect teacher transformation or understand how to focus on student learning. Educators are still deeply-rooted in a sorting system, made obvious by their focus on provincial exams. The obsession with teaching to and assessing success based primarily on final or provincial exam scores and rankings represents the sorting system that has prevailed in the industrial age and is reflective of the fixed mindsets that emphasize summative assessments (Kaser & Halbert, 2008). Most secondary school educators are required to use the British Columbia Enterprise Student Information System (BCeSIS) which is a reporting tool with limited flexibility and compels them to use a number and preformatted comment to report learning. There needs to be a deep

understanding about what it takes to be an instructional leader in today's challenging educational environment. There needs to be a change in educational mindsets. Earl (2003) acknowledged that, for the past century the concept of learning was seen as behaviouristic, where students were asked to focus on learning specific, discrete skills and facts in a set sequence.

This theory has been challenged by the social constructivist view of learning that emphasizes the cognitive process. Teachers and principals had not and did not see any perceived need to improve student outcomes. Teachers and instructional leaders (principals) who have recently been involved in the continuing education system are more likely to see a need to improve student outcomes and are moving forward in a social constructivist manner (Postholm, 2012). There are many teachers and principals who are trying to follow wise practice and many that are stuck in old traditional methods. Those who are stuck using traditional ways, behaviourist ideals, are in a fixed mindset (Dweck, 2006; Kaser & Halbert, 2009). Some educators want to move but are at a stage that Sackney and Mitchell (2008) suggested is prevalent in the Canadian educational system, where educators are left on their own to find professional development that enhances their ability to put student learning at the core of their profession. Their learning has been coordinated by others and has not helped enhance student learning.

At the root of educational change is the understanding of assessment *for, of* and *as* learning. There is a paradox that educators face daily in their classrooms and schools. They value the concepts of formative assessment (Black, Harrison, Lee, Marshall, & Wiliam, 2004; Black & Wiliam, 1998; Clarke, 2005; Earl, 2003; Wiliam, 2011) and lifelong learning but they do not always demonstrate it in the classroom. Educators, I defined as teachers and principals, need to be working together to have the greatest impact on improving student learning. I have worked

collaboratively with teachers to develop our own assessment team focusing on the use of formative assessment. I used my strengths in creating learning communities, enabling conversations, demonstrating competency in role, being trustworthy, and believing in lifelong learning to focus our assessment team to improve student learning. It is with the thought of "change the mindset, change the behaviour" (Brava, 2012, para. 1) that I wanted to continue with my leadership inquiries and find out what strategies other principals in my school district are using and which they feel are successful in changing teacher pedagogy and improving student learning. This inquiry also needed be balanced with input from teachers and to incorporate their points of view.

Significance of the Research

My leadership inquiry focuses on my role as a principal. This inquiry has mainly focused on how to lead teachers in shifting their pedagogy related to Assessment for Learning (AFL). I have come to understand this idea as "developing learning-centred leadership," (Timperley, 2006, p. 546) or instructional leadership. Robinson's (2008) seminal work clearly showed the mean effect size "for the impact of instructional leadership on student outcomes is three to four times greater than that of transformational leadership" (p. 655). Her research identified that promoting and participating in teacher learning and development has an effect size of 0.84 (Robinson, 2008, p. 655). It is powerful to know that an instructional leader's best way to affect student outcomes is to be an active part of the teacher's learning; in effect being the lead learner (Robinson, 2008).

In 2009, I planned an inquiry centred on a group of newer teachers who focused on student learning. My role was to lead them through a discovery of current wise practice and allow them to work through the practical approaches to using the big strategies of assessment

(Clarke, 2006; Cooper, 2007; Kaser & Halbert, 2002; Wiliam 2007, 2008, 2011) and then ask them to elicit student feedback on the effectiveness of the strategies. With teachers meeting to discuss their practice and formative assessment ideas, my goal was to see increased results on either a unit of work, project, or course. The research used a narrative inquiry and the data verified the results espoused by both Timperley (2006) and Robinson et al. (2008). It is this instructional leadership role that needs further investigation and generated further questions: Do the majority of principals act as lead learners? Are they promoting and participating with the teachers in their schools? How do they measure their leadership impact on student outcomes? Do teachers answer these same questions in a similar fashion?

My decision to focus on shifting teachers' pedagogy through their professional learning and what leadership strategies are used, by principals, to assist them in furthering this learning has been amplified by the limited research in this area (Postholm, 2012). This is also hampered by the resistance of many teachers, in my school and in research, to start on any strategy that is viewed as coming from the top down (Jurasaite-Harbison & Rex, 2010).

Purpose of the study

The optimal way to determine how to improve student learning is to ask both teachers and administrators how professional learning or development improves educational practice. I needed to ask how structural conditions and supports within the school, district, and province best help teachers shift both their pedagogical and professional practice. I was interested in which professional development practices helped in-service teachers self-reflect and focus on the learner-centered model which embedded formative assessment practice. To explore this question, I focused on two small groups of educators, who are or have been involved in either learning teams or with problem-based inquiries. This approach allowed me to apply a lens with which to

view what shifted teaching practice from a behaviourist approach to learning to a constructivist approach. This research represented an attempt to test what strategies were effective in changing teachers' pedagogical approach which had been focused on teaching rather than on student learning.

This inquiry followed on Robinson (2007a & b), Timperley (2008), and Postholm's (2012) research which identified that there should be a team of learners that includes both the teachers and administrators. I established strategies identified by both groups to be best practice and identified some differences in viewpoint between the two groups.

Research Question

My research question was: What strategies are principals using to promote teacher learning or development focused on improving student learning? And further, which conditions do both teachers and principals feel best effect a pedagogical shift in practice that enhances the teachers' ability to learn in order to use their knowledge about teaching to benefit student learning?

Conceptual Lens (Orientation)

In 2008, I received an administrative transfer to Kelly Road Secondary and arrived at a school where teachers and principals did not perceive a need to improve student learning. They were stuck in fixed mindsets (Dweck, 2006). There was a need for an educational change or a shift to a growth mindset. I have always subscribed to lifelong learning and embarked on a change. My change was twofold; I enrolled in the certificate of School Management and Leadership program at the University of Victoria; and I formed an assessment learning team at my school. The team was called the Kelly Road Assessment Team or KAT. I decided that I needed to lead and demonstrate my belief in being a life-long learner and reflective practitioner

focused on student learning. At Kelly Road, I worked with a group of teachers and developed a strong professional relationship and community focused on their classrooms, our school and student learning.

We found considerable complexity to being educators and linked this to Vygotsky's (1978) social constructivist paradigm. Social Constructivism focuses on the social interaction, or discussion, between participants as how we generate meaning. Constructivists, or generalized under the term, *interpretivists*, ask open-ended questions to permit research participants opportunities to share. I used this lens to help frame my understanding around formative assessment practices and helped lead a group of teachers on similar professional inquiries.

Chapter Summary

How to use social constructivist practices as an instructional leader is an important area of study. Developing safe, caring, and sharing groups of educators focused on student learning is expected to lead to positive outcomes. What strategies are most successful will be viewed through both teachers and principal's lenses.

This thesis continues with four further chapters. Chapter 2 reviews the literature that highlights how to make a pedagogical shift and how leaders can best assist teachers in implementing this change. The literature review discusses their findings and gives a detailed discussion of the actual research. Chapter 3 describes the research methodology or process from which I learned from the participants. Focus groups were selected as means of gathering evidence about individuals who have critically examined their practice and individuals who have been involved in shifting and supporting teacher practice that enhances student learning. Chapter 4 discusses the results and highlights three significant findings. Detailed discussion of the results

is included in this chapter. Chapter 5 closes with conclusions and insights into what leaders can do to support teacher professional development or learning.

Chapter 2: Literature Review

Formative assessment, also known as assessment *for* learning (AfL) in the education system, is under scrutiny regarding a need for enhanced knowledge and improved teacher practice in this area. AfL is used as a template for the analysis of teacher practice and recommendations for professional development. The review of the salient literature speaks to the role school principals have in assisting with shifting teaching practice through administrator involvement with teacher professional development and building professional relationships with teachers in a supportive social learning environment. The literature reveals the notion of disconnect between what teachers practice in their classroom and what current research suggests as best practice in terms of assessment for learning (Resnick, Spillane, Goldman, & Rangel, 2010). Lastly, the literature review demonstrates how principals can connect with teachers to share and inform them about new research regarding changing pedagogy and praxis. This particular research intends to determine which instructional leadership strategies principals should use to best support teacher professional growth

Pedagogical Shift

International research suggests it is time to review school organizations and the role each plays in developing school practice (Hattie, 2009; Resnick et al., 2010). Hattie (2009) discussed the volume of educational research and acknowledges that it is rarely used by teachers. Underlying this research is a pedagogical shift from the educational focus being on teaching practice to focus on student learning. The redirection of this focus shifted the feedback process and reasoning from teachers striving to improve student feedback to teachers using student feedback to guide educational best practice. Hattie spoke to the need for educators to realize "the power of directed teaching, enhancing what happens next (through feedback and monitoring) to

inform teachers about the success or failure of their teaching" (2009, p. 6). Resnick et al. (2010) acknowledged a gap between classroom practice and policies, research and systems regarding what teachers do in their classrooms and what principals do in their schools in relationship to what the current research-based evidence suggests they should be doing. Darling-Hammond, Chung Wei, Andree, Richardson, and Orphanos (2009) also pointed out that teachers did not analyze their professional practice as an important component of professional learning or development. Darling-Hammond et al. felt current research supported the need for teachers to reflect on their own practice and collaborate with colleagues in small groups or communities.

Current research also suggests that principals need to shift their paradigms in order to be actively involved in creating opportunities for teachers to engage in professional learning or development. School administration's involvement has been shown to significantly impact student learning (Robinson, 2007a, 2007b; Timperley, 2006). The shift must address the importance of school principals' working and thinking outside of their comfort zones and know what teachers are developing in their professional practice. In particular, school principals need to have knowledge and a clear understanding of assessment *for* learning. Principals who are an active part of teacher AfL collaborative practice have a significant impact on student outcomes.

Formative Assessment

Formative assessment is described in the current literature as a series of practices with an overall theme; seeking an action that improves learning (Black & Wiliam, 2009; Wiliam, 2008, 2011). A decade of studies revealed the positive effect that formative assessment has had on student achievement (Black & Wiliam, 1998; Clarke, 2006; Earl, 2003; Kaser & Halbert, 2007; Wiliam, 2008, 2010, 2011). Black and Wiliam (1998) proclaimed the effectiveness of student learning could be doubled if formative assessment is properly employed. Subsequently, research

focuses on how educational leaders can affect student success, which is best accomplished when school principals support and work with teachers to change their beliefs and practices about formative assessment (Robinson, 2007a, 2007b; Timperley, 2006, 2008). Black and Wiliam's analysis identified the need to focus on formative assessment. In particular, Wiliam (2009) suggested that teachers require the application of five key assessment for learning strategies: a) clarifying, sharing and understanding learning intentions and criteria for success, b) engineering effective classroom discussions, activities, and learning tasks that elicit evidence of learning, c) providing feedback that moves learning forward, d) activating students as owners of their own learning and, e) activating learners as instructional resources for one another. Kaser and Halbert (2007) referred to these assessment strategies as *The Six Big Strategies* by dividing learning intentions and success criteria into two strategies.

Educators want to develop or enhance their assessment strategies, but find a change in practice challenging. Teachers often start by shifting their pedagogical focus from instruction to a focus on learning (Kaser & Halbert, 2007). Due to a deep seated belief that assessment and grading are the same (O'Connor, 2002) many teachers' first step to employing formative assessment is to understand the language of assessment. O'Connor reinforces the practice of assessment as being frequently used to sort, report and justify grades and often is utilized at the end of students' work and teachers' planning which is also reiterated in Earl's (2003) work. The paradigm shift is for teachers to use assessment to inform the instruction of student learning rather than simply evaluating the work after the fact.

Hattie (2009) deepened our understanding of formative assessment by talking about its components and the importance of each element. Hattie supported feedback as a critical component that should serve as an avenue in which teachers gather information about student

capabilities or gaps in their learning process. This particular feedback drives both the broad strokes of what to do in a classroom and how to work with each student. Teachers support student learning by informing them of learning intentions and success criteria (Black and Wiliam, 2009; Wiliam, 2011). These goalposts let teachers know if each student is attaining the criteria and informed decisions regarding planning if gaps between student's knowledge and success criteria are prevalent. Teacher learning and improving student outcomes are linked through the ability of teachers to focus on students capabilities that serves to shape teaching strategies (Hattie, 2009). In essence, Hattie informs readers that students need active and guided instruction which is also evident in research performed by Timperley and Alton-Lee (2008). As a secondary school teacher and administrator in the British Columbia public school system, I support the critical need for feedback and success criteria as fundamental strategies for effective teachers. Overall, there appears to be an understanding that improving teacher learning cannot be done without a depth of content knowledge on which to base classroom decisions.

Formative assessment has been a focus of teacher professional learning and played a critical role in changing the mindsets of teachers (Volante & Beckett, 2011; Wiliam, 2011). Formative assessment allows teachers to connect research to their classroom practice which coupled with the idea of ongoing inquiry as a personal form of professional development (Parr & Timperley, 2010). Personal professional development helps make lasting change to pedagogy and practice. This focus on personal learning and growth also parallels the notion of formative assessment and as such that Stoll and Temperley (2009) recognized the duality of focus; what do students need for learning and what do teachers need for learning. Timperley, Wilson, Barrar, and Fung (2007) believe that formative assessment should be an important component of professional development because it directly impacts student outcomes. Timperley et al.'s meta-

analysis clearly showed that when teachers understand and learn to use formative assessment as professional learning student outcomes are substantially impacted. Their message is that formative assessment motivates teachers to be more deeply involved in professional learning. At this point one can reiterate the description that formative assessment is a series of practices with an overall theme; seeking an action that improves learning (Black & Wiliam, 2009; Wiliam, 2008, 2011).

Instructional Leadership

Educational research literature informs us of several evolving perspectives on educational leadership under the following designations: a) distributed leadership (Dempster, Lovett, & Flückiger, 2011; Harris, 2004; Harris and Spillane 2008), b) transformational leadership (Leithwood, Harris, & Hopkins, 2008; Moolenaar, Daly, & Sleegers, 2010), and c) instructional leadership. Instructional leaders work with teachers to improve student learning. Educational leadership research increasingly focuses on instructional leadership because it is linked to an improvement in teaching capacity and student learning (Brown, 2010; Darling-Hammond & Rothman, 2011; Robinson, 2007a, 2007b; Robinson, Lloyd, & Rowe, 2008; Timperley, 2006, 2008). Prior to Robinson (2006) the research literature was limited regarding the effect that school leaders, or principals, had on student learning. Instructional leadership was found to have a greater impact on student outcomes than other leadership styles (Robinson, 2007a, 2007b; Robinson, Lloyd, & Rowe, 2008). Brown (2010) suggests these findings support the renaissance of instructional leadership. Timperley's (2008) research on instructional leadership established that school principals need to ensure that their schools are organized to support effective teacher collaboration and learning. School principals who employ an instructional leadership style target pedagogy that will affect student learning and result in great success with attaining student

outcomes that are transferrable to classroom practice (Dempster et al., 2011).. Robinson (2007a, 2007b) advocated for high performing school principals to focus on instructional leadership and support teacher professional development. Dempster et al. communicate the importance of a leader's ability to coach others and support their professional development is a key attribute of a quality leader. Postholm (2012) acknowledged that leaders have to create "organizational room" for teachers' professional learning which aligns with the belief that leaders should follow what they call the "kernal routine" where leaders help seed and propagate change with a focus on teaching and learning (Resnick et al., 2010). In my experience as an educator, I am aware that teacher professional learning is enhanced when school principals or administrators support a school culture of learning.

Adopting a more focused role of supporting and challenging teacher instruction is imperative for school principals to practice in terms of individualized circumstances and student learning (Timperley, 2008). Individualized application can occur through the sharing of annual professional growth plans with teachers. Earl (2003) called this plan "reciprocal learning" where both parties can engage with each other as social creatures. Principals may want to allocate more of their time on teaching and learning, but have to regularly deal with student behaviours, staff issues and frequent managerial tasks that demanded their attention (Robinson, 2006). Stoll and Temperley (2009) suggested that principals need to see, think and do things differently when supporting teachers. Principals could be more actively involved to change the system and culture of the schools which leads to the concept and concentrate on engaging teachers in professional learning and development geared to improving student outcomes (Timperley, 2008). The result of a principal's focus on improving the quality of teaching can then directly affect student leaning (Stoll & Temperley, 2009; Timperley, 2008). The fore mentioned sharing and working in

collaboration with teachers illuminates instructional leadership as best practice for school principals.

Robinson (2007a), in her meta-analysis of leadership, identified and grouped leadership practices into five dimensions based on how researchers described the parts and wording associated with their leadership indicators. Most importantly, she measured the effect size of these five dimensions on student outcomes. Robinson's (2007b) results showed the largest effect size (ES=0.84) occurs when leaders take an active part, promoting and participating, in teacher learning and development. The context for leaders to participate with their staff could be both "formal, such as professional development, and informal, such as discussing teaching issues" (Robinson, 2007a, p. 4). In this work, Robinson stated that principals need to focus their influence, communication, learning and relationships on teaching and learning and thus best effect improved student outcomes. Postholm's (2012) research supported this idea that principals needed to participate with teachers as a learner.

Teachers who use formative assessment and work directly with students create the best chance to increase student success. The research suggests that teachers did not necessarily see teacher - student relationships as the largest effect on improving learning (Timperley et al., 2007). Robinson (2007a, 2007b) established that supporting teacher professional learning and development was critically important.

Principals need to support change in teacher mindsets and encourage and support their use of formative assessment. Earl (2003) noted that the first step to supporting mind set was to enable teachers to mentally deal with the paradigm shift to their pedagogy and practices. Teachers will not actualize formative assessment if they do not have a reason or belief to do so; when they do have a reason, they translate it into their regular classroom practice. Secondary

teachers, generally, have more specialist content knowledge, in order to teach their subject area and less pedagogical knowledge than their elementary school counterparts. The idea of specialists and generalists needs to be recognized when there is a pedagogical discussion about formative assessment (Timperley et al., 2007). Fostering trust, respect and developing support systems as a school principal assists with teacher learning. This process allows teachers time to *own* their learning and increase their motivation (Timperley et al., 2007). Focusing on student or teacher artifacts representing their learning helped ground conversations and kept out the subjectivity or emotions of teaching (Kaser & Halbert, 2009; Timperley & Alton-Lee, 2008). This same focus on artifacts should be used in the ongoing discussions between principals and teachers (Lieberman & Pointer Mace, 2010). McNaughton, Lai, MacDonald, and Farry (2004) described how the focus on articles by a group of teachers increased engagement and challenged existing beliefs and theories of practice because it developed a community to meet the challenge. Kaser and Halbert (2009) supported the idea that trusting relationships were characteristic of the strongest forms of schooling. These types of relationships connect teachers and principals professionally and establish solid support for teacher learning.

Robinson's (2007a) research confirmed that principals must make professional development an important component of their regular life. Principals must support and work with teachers. Equally important are the social situations that influence teachers, such as: who they interact with each day; their relationship with the British Columbia Teacher's Federation (BCTF); if they have taken postgraduate education; or the types of literature they read. Principals deal with both real life situations and practical implications of formative assessment. Real-life challenges are addressed when principals focus on student success which promotes clarity and coherence across their school (Timperley et al., 2007). Timperley et al. also suggested school

staff need support to process their understanding of formative assessment and its implications on their teaching. Leaders must also promote and participate in teacher learning and development as this enables both leaders and teachers to move out of their black boxes (Black, Harrison, Lee, Marshall, & Wiliam, 2004; Robinson, 2007a, 2007b). This is instructional leadership; where principals focus on ways to enhance teacher abilities to improve student learning and outcomes.

Instructional leaders' active involvement in professional development needs to focus on the individual teacher. This should focus on what each teacher wants and help them develop an annual professional growth plan as a collaborative effort between teachers and principals where improvement strategies are linked to professional development plans (Darling-Hammond & Rothman, 2011). Change is accomplished when principals have a strong and sustained interest in student learning and are prepared to learn about learning (Timperley, 2008). This means being a regular part of teacher learning which includes looking at the needs of each teacher within their school, promoting teamwork and being actively engaged in teacher monitoring, evaluation, feedback and professional development (Robinson, 2007a; Timperley, 2008). Principals can then plan for the school wide supports needed for professional development. These plans need to inspire individual teachers and motivate them to collaborate around their professional development goals. The expectation should be that promoting teacher learning is the key function of the principal. It also means a radical change in some schools as principals need to reclaim their professional role as an instructional leader. Teacher motivation is fundamental to improving teacher learning. Leaders need to promote professional development that changes or enhances teacher's abilities to self-regulate and to utilize an inquiry approach daily (Timperley, 2008). There is also a relationship between motivation and teachers ability to experiment and reflect. Teachers' sense of self-efficacy is the most important motivational factor in teacher

learning, professional development, and teaching practices (Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). This means principals need to move from merely organizing learning opportunities to working with teachers to be the lead learner and, in so doing, develop a vision of new possibilities.

To be an effective educational leader requires intense moral purpose, just as using assessment for learning should be the moral imperative in any good school (Kaser & Halbert, 2008). In my professional opinion as an administrator, the secondary school system is not designed to focus on learners' needs which aligns with Kaser and Halbert's (2009) statement describing the school system acting as a sorting system rather than a learning system. Many teachers and principals viewed the purpose of schools as a mechanism in which students were sorted for university (Kaser & Halbert, 2008, 2009). Given that this mindset does not focus on the business of learning, Hattie's (2009) work explained how educators could improve what they do. Educators have varying levels of knowledge and interest about assessment, student learning, success and current research literature. The varying levels of knowledge and interest make it easy to see why we exhibit problems that Fullan and Stiegelbauer (1991) proposed are *not* related to "resistance to innovation, but the fragmentation, overload, and incoherence resulting from the uncritical and uncoordinated acceptance of too many different innovations" (p. 197). The instructional leader's job is to guide teachers through these difficult tasks.

School Culture

Professional learning communities (PLCs). Many principals focus on sending teachers to 'one off' conferences in an effort to shift their pedagogy or enhance teachers' abilities to put student learning first. These conferences do whet teacher's appetite and are motivational but in isolation they were a waste of money (Sackney & Mitchell, 2008). Conferences have been part

of a fragmented in-service (Darling-Hammond & Rothman, 2011) and have been seen as a wasted resource (Dempster et al., 2011). Conferences have failed to link professional learning to instructional change and there has been limited ongoing dialogue amongst teachers after they return to their schools or districts. Conferences fail to provide any focused ongoing professional development (Sackney & Mitchell, 2008). A focus of many of these conferences have been on Professional Learning Communities (PLCs) exemplified by the Solution Tree organization and Richard Dufour. PLCs original focus created a cookie cutter approach that could be utilized in any school. Many schools tried to fit PLCs into the existing framework of their traditional schools. Principals create these learning communities and then leave teachers to work on their own. Many principals did not participate with these groups nor did they provide teachers with clear learning intentions or criteria for their own professional development (Timperley, 2006). Principals felt that if teachers collaborated then there would be improvements in student outcomes (Dempster et al., 2011). Timperley (2006) also suggested that principals did not see themselves, or their abilities, as the target of the initiative. Principals, with good intentions, merely wanted teachers to talk about their professional learning. Stoll and Temperley (2009) acknowledged that focusing on learning teams was important, but principals' roles frequently did not allow them time to participate. The notion of PLCs has hit its peak and many educators do not believe in this didactic approach because PLCs have not correlated with improved student outcomes (Dempster et al., 2011; Liberman & Pointer Mace, 2008; Sackney & Mitchell, 2008). Productive teacher learning communities are characterized by teachers who have a clear and sustained focus and collective responsibility for student learning (Postholm, 2012). Educators who want to take collective ongoing action and ownership can improve student outcomes.

The ideas behind small groups or teams of teachers working together is important as long as they are working with leaders to provide explicit, focused, ongoing professional development for schools (Dempster et al., 2011). The principal's role should be to promote a visible focus on teaching and learning and to establish accountability within the school (Resnick et al., 2010). Researchers found that successful and lasting change could be initiated by either principals (top down) or teachers (bottom up) (Resnick et al., 2010; Robinson, 2007a; Stoll & Temperley, 2009). This type of professional development is a change for many teachers and leaders.

There is a fine line between directing and supporting teachers in their professional learning and development. Principals must help facilitate teacher learning networks that have active leadership from classroom teachers (Kaser & Halbert, 2013; Lieberman & Pointer Mace, 2010). Leadership is both important and challenging in the secondary school setting. Secondary school's departmental divisions have to be transcended in order to achieve a shared vision and common purpose (Timperley & Alton Lee, 2008). Teachers need to translate new theory into practice which is a challenge in secondary schools which are curriculum centric. Secondary school teachers have demonstrated an interest in professional learning when the focus is around formative assessment (Timperley & Alton Lee, 2008). Professional learning communities need to transform and be ongoing and the collective responsibility of principals and teachers who are focused on student learning.

Working with others. The structure of schools has created an isolationist environment for teachers. This is harmful to teacher learning and development and, consequently, student learning (Lieberman & Pointer Mace, 2010). Professional development has also been isolationistic and there has been a call to develop more connected educators, within a school setting, in a social or constructivist manner (Lieberman & Pointer Mace, 2010; Postholm, 2012;

Timperley, 2006). Educators need to recognize and embrace the social aspect of learning. A systemic shift needs to occur where we move from an isolationist educational model to one where there is a community involved. A school community focused on learning must involve both teachers and principals (Robinson, 2007a, 2007b). Socially connected learning communities are a crucial aspect of how people change their practices (Resnick et al., 2010). Changing teacher practice is a cognitive activity, and as such, must be social in nature (Postholm, 2012). Postholm (2012) identified that knowledge is the construction of both meaning and understanding within a social context. Social context is decisive in making lasting change around how a teacher learns and develops. Brown (2010) concurred that both structural and cultural supports were necessary for instructional changes to be made. Professional development needs to be collaborative and social to be effective.

Going public about one's teaching practice is another crucial element for improving it (Lieberman & Pointer Mace, 2010). Public means reflecting *with others* about what teachers are doing in their classroom(s) and sharing artifacts, lessons and results (Lieberman & Pointer Mace, 2010; Timperley, 2008). This constructivist paradigm, with its focus on student outcomes, assists or motivates teachers to try new strategies and then integrate them into ongoing practice (Postholm, 2012; Timperley, 2008). Creating professional knowledge with others, through social situations, is the starting point of teacher professional learning (Lieberman & Pointer Mace, 2010). This shared exploration which involves jointly experimenting and taking risks creates a sense of reciprocity (Stoll & Temperley, 2009). The constructivist paradigm also acknowledges that teacher learning or knowledge building should be constructed within a social interaction. Postholm (2012) believed that the most important factor for improving student outcomes was a school's capacity to support teacher professional learning. Timperley and Alton Lee (2008)

discovered, through their research work on the topic of school improvement, that when teachers are assisted with changing their pedagogical and assessment for learning knowledge the result is active teacher participation in learning communities. Stoll and Temperley (2009) clarified that that the social interaction needed to be focused and responsive to students. The true learning community, or culture, is a collective social engagement which leads to sustained professional growth (Stoll and Temperley, 2009; Timperley, 2006). Lieberman and Pointer Mace (2010) refers to collegiality as being helpful to produce knowledge leading to improved practice. It is through the acts of experimenting about their teaching, with other educators, that teachers created their own new knowledge. A collaborative approach to professional learning reduces teacher isolation and extended across a multitude of classrooms (Darling - Hammond et al., 2009). Positive social dynamics have enhanced professional development (Lieberman & Pointer Mace, 2010). We need to acknowledge and embrace that educators are social beings and principals need to create social situations where teacher learning is focused on improving student outcomes.

Professional Development

Postholm (2012) defined teacher professional development "as teachers' learning: how they learn to learn and how they apply their knowledge in practice to support pupils' learning" (p. 405). Professional development is the vehicle teachers use to improve their practice and, historically, has focused more on improving teaching strategies than on student learning (Lieberman & Pointer Mace, 2010; Sackney & Mitchell, 2008). Many teachers dislike professional development that has been mandated. Some decline to participate in professional development unless it is called in-service and is provided during the regular school day. Teachers want to control their own professional development and do not want school districts or principals

to limit their autonomy (Naylor, 2011b). Some resist change coming from any external source (Volante & Beckett, 2011). However, Timperley and Alton-Lee (2008) established that when teachers improve their knowledge and skills through professional learning there is a direct correlation to improved student outcomes. These results are achieved whether professional learning or development was mandated or voluntary.

Professional development has been viewed by teachers as being well-intentioned but often fragmented, disconnected and irrelevant to the real problems in their classrooms (Lieberman & Pointer Mace, 2010; Timperley & Alton-Lee, 2008). Traditional professional development approaches that sent teachers away from their schools have not worked. These revolved around sending teachers to workshops using a recipe or "one shot", "sit and get" approach to learning (Hunzicker, 2011; Volante & Beckett, 2011). Teachers' professional development happened outside their schools and as such helped magnify the isolation of teachers, both physically and developmentally. There has also been limited training, lack of support and / or funding to enable a pedagogical shift in teachers mindsets or attitudes to enable any long term change (Forlin, 2012). Teacher professional development needed to address both a new way of thinking and of practice. Forlin (2012), Robinson, (2007a, 2007b), and Timperley, et al. (2007) spoke to using current theory and evidence based professional learning because of the need to change both beliefs and praxis. Naraian, Ferguson, and Thomas (2012) argue that in order for a shift to occur teachers need to be able to embrace change and then acquire the skills necessary to more independently assess, intervene and document improvements when they have to work through challenging student learning issues. There is a widespread call for delivering professional development in a different way.

Hunzicker (2011) perceived effective professional development as anything that engaged teachers in their own learning, where activities are supported by principals, are classroom embedded, student focused, collaborative and ongoing. This reflective practice is not yet a way of thinking for many teachers or principals. Postholm (2012) and Strieker, Logan and Kuhel (2012) all agreed that in order for professional development to be successful it had to be job embedded and ongoing. Strieker et al. advocated that professional development must ensure that teachers have emotional and technical support at the classroom level, a school community to articulate and develop their pedagogy, and ongoing profession learning that is student focused. This type of professional development is in contradiction to the traditional isolationist character of the teaching profession (Sackney & Mitchell, 2008). Research clearly supports the idea that teachers need to visit other teacher's classrooms where they can observe, question, and clarify what they understand about student learning (Darling-Hammond et al., 2009; Postholm, 2012; Resnik et al., 2010; Slavit et al., 2013). Many teachers who have been able to change their pedagogy or praxis through professional development have also been involved in a Masters of Education program. Volante and Beckett (2011) were surprised when their Canadian findings acknowledged this. Current research demonstrates that teachers focused on learning with other teachers, in their classrooms, enhances student learning.

Control: Top Down / Autonomy

Teachers' professional development needed to focus on their own teaching practice (Lieberman & Pointer Mace, 2010). This learning needs to have a school network or community involved including collaboration between teachers and principals. Robinson (2007a, 2007b) demonstrated that professional development could be successful whether it was initiated by either the teacher or principal. In fact, Leiberman and Pointer Mace (2010) demonstrated that

their needs to be active leadership involvement for any attempt to enhance teacher learning to succeed. Teacher autonomy has been a hot topic in the British Columbia Education System. The British Columbia Public School Employers Association (BCPSEA) and the British Columbia Teachers Federation (BCTF) have debated what professional development should look like and who should be controlling it (BCPSEA, 2011a, 2011b; Naylor, 2007, 2011a, 2011b). Postholm's (2012) research found that teacher autonomy is supportable when teachers can identify their own learning objectives and are able to talk about and reflect with, other educators, in an "independent process". Principals need to set the wider context, or goal posts, of professional learning or development and teachers need to clarify what they want to develop. Researchers suggested that the goal posts need to be a focus on student learning. Timperley and Alton-Lee (2008) found that teachers should NOT self-regulate their own professional development. They found that teachers could not enhance their practice merely by being given time and money to construct their own learning. Postholm established that teachers had the ability to increase the teaching ability by co-operating with other teachers and taking responsibility for their own professional development but had to work within the support systems of their schools.

Principals need to realize that the rationale for engagement in professional development is viewed differently by those who provide them and those that participate. Principals are looking to change both beliefs and praxis; while teachers participate because they wanted to enhance their current teaching practice. It is important for principals to highlight compelling rationale for teacher advancement prior to the initiation of any professional development (Timperley & Alton-Lee, 2008). This compelling rationale is a challenge for secondary school teachers as many do not participate in school or district planned professional development (Darling-Hammond et al., 2009). These teachers were challenged by when and how they could have any ongoing

conversations focused on learning. They have historically focused on conversations related to specific content related needs. Wiliam's (2011) believed some teachers have shifted away from curriculum focused conversations by keying on conversations focused on formative assessment practices.

Classroom Environment: - Inquiry and Evidence or Data

Teacher's professional development has not always involved collaboration about teaching practice. Collaboration has typically focused on strategies teachers should use to improve their own practice. These well intentioned plans did not have enough data associated with them to demonstrate a link to improvements in student learning. Slavit et al.'s (2013) research identified that teachers spend limited time on any data analysis focused on improving student learning. Teachers want to see information as useful and then they will use this information to guide their practice. Professional development conversations need to reflective of what is going on in the classroom (Lieberman & Pointer Mace, 2010; Postholm, 2012). Educators need to develop factual evidence that involves all three steps; conceiving, collecting and using student data. Teachers' should learn from each other, in their schools, as they are their own 'best practice'. Professional development then becomes a series of research lessons where teachers can take their learning or theories and refine their practice using their own students (Lieberman & Pointer Mace, 2010). Teachers and administrators remove subjectivity when they use student learning data as the core of changing their practice. Teachers working with other teachers should use student learning data and be inquiry based to have a direct correlation to improved student outcomes (Slavit et al., 2013). Systematic use of data to guide both learning and teaching are essential to effective learning communities (Mcnaughton et al., 2004; Parr & Timperley, 2010) which in turn has had a positive effect on student outcomes (Postholm, 2012).

Teachers, who are improving their teaching, as measured by improved student outcomes, have developed skills related to analysing, interpreting and using data (Postholm, 2012). This evidence can be as simple as teacher's asking simple questions of students and then using feedback to reflect on the effectiveness of their teaching (Parr & Timperley, 2010). The use of evidence or data in professional development is called inquiry based learning. The use of evidence about student learning is needed to guide improvement in teaching practice. This may be a paradigm shift for many educators.

Lieberman and Pointer Mace (2010) emphasized that collaboration with one's peers, within your school, is an important element of improving ones practice. It is the shared and open classroom observations that are a key lever for change and demonstrate the power of inquiry (Parr & Timperley, 2010). Teachers need to feel confident that their exploration in the classroom does not harm students but ultimately can help them. Linking professional learning to what is relevant in the classroom supports teachers desire to use their professional development time wisely (Postholm, 2012). The development of deeper learning is possible if teachers are networked to other teachers and focused on the day to day activities of teaching (Kaser & Halbert, 2013; Postholm, 2012). Both Postholm (2009) and Timperly (2006) are aligned with advocating the message that when teachers work collaboratively in the capacity of observing and providing feedback in each other's classrooms the greatest number of changes in teaching practice occurr. Collegial observation and feedback practice also serves to break down the professional isolation seen in most schools (Darling-Hammond et al., 2009). Darling-Hammond et al. also support the argument that teachers value professional development when it is "hands on" and when they work with groups of teachers examining student data and work. In addition to teacher collaboration; a supportive leader's role is to help all teachers focus on their own needs

and interests (Robinson, 2007a, 2007b; Postholm, 2012). This professional dialogue needs to be clearly focused on an examination of student work and learning (Slavit et al., 2013). There is no evidence that teachers merely collaborating about students will improve teaching or student learning (Timperley, 2006). Collaboration alone does not work. The use of evidence, when collaborating, needs to be a part of professional learning because this will improve the quality of teaching (Timperley, 2006). Collaborative work practice focuses on teachers' everyday reality, their classrooms! School principals and administrators are looking to create collaborative learning communities from which professional development can flourish; fostering the social interactions that teachers need.

Time

School principals and teachers agree a one of a kind conference does not provide an adequate amount of time for professional development. Professional development needs to be both intensive, and offered over a sustained period of time, to have any impact on student outcomes (Darling-Hammond et al., 2009). The minimum time suggested for improvement in teaching is one semester and a minimum of twenty hours of contact time (Postholm, 2012) while others suggests 45 intensive hours (Darling-Hammond et al., 2009). However, these particular researchers agree that there needs to be multiple opportunities, regular frequency and held over a sufficiently long period of time (Darling-Hammond et al., 2009; Lieberman & Pointer Mace, 2010; Postholm, 2012; Timperley et al., 2007).

Summary

Shifting pedagogy and the practice of both teachers and school principals can be difficult. Current literature provides evidence-based research, and validity, indicating that the climate or culture educators work in affects teacher professional growth. The literature illustrates that

principals and teachers should be working together as a learning community to share what is going on in their classrooms and school.

Educators are trying to connect current research to their classrooms or school practice. This is a pedagogical shift from a focus on teaching to a focus on student learning. Principals who want to be instructional leaders need a strong foundation in formative assessment. They also need to support and develop school cultures and communities that value deep learning. Teachers need to be encouraged to share their knowledge about student learning with educators within their own schools. Teacher professional development and learning should be a part of the regular school day. Two focus groups, consisting of teachers and principals, were held to find out what some of this best practice looks like. The next chapter outlines the findings from these focus groups.

Chapter 3: Methodology

Introduction

This investigation was concerned generally with what actions principals should take to support, develop, or enhance teaching effectiveness. The research centred on using professional development focused on assessment for learning (AfL), a fundamental part of good teaching, to suggest what skills, tasks or supports principals should utilize to change teacher pedagogy and improve student learning. This chapter provides an explanation of the research philosophy as well as the epistemological perspective informing the study. The theoretical framework underpinning the study is described and then the research design, methodology and ethical concerns are explained. Finally, the data analysis process, including the transcription and coding, is oulined.

Research Design

Qualitative research is a way of looking at the world and it refers to the "meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things" (Berg & Lune, 2012, p. 3). Higgs and Cherry (2009) felt qualitative research was a powerful and credible tool for revealing and understanding the human world. My research focused on interpreting which practices or conditions teachers and principals characterize as effective in enhancing teacher learning or professional development. It is through the lived experiences of practicing educators that we will find understanding about which processes enhanced their practice and improve student learning. It is appropriate to explore educators' beliefs using a qualitative method, such as the focus group interview, as focus groups are seen as one of the most common and important data-gathering tools (Myers & Newman, 2007). Winlow, Simm, Marvell, and Schaaf (2012) felt focus groups could be used to expose "the differences, contradictions, unique

experiences, views, perceptions and attitudes expressed by different group members allowing for a richer understanding of the issues" (p. 2). Focus group methodology is a rich interactive data-gathering experience.

Focus groups are social by nature and it was the group dynamics around learning which was especially important as "learning is connected to the cognitivist – and mainly constructivist – paradigm" (Postholm, 2012, p. 406). Both paradigms see the learner as an active participant in their learning process. In fact constructivism is a philosophy of how we learn, and understand, how teachers learn and principals influence this. Constructivism relies on Vygotsky's (1978) beliefs that the social interaction between participants is how we best learn. These focus groups use a similar principle of social interaction and because of this similarity, they were used as the data collection tool.

There is disagreement about what good practice in focus group design is and the importance of the results (Freeman, 2006). Freeman felt the confusion came from researchers adopting research methodology which was different from their epistemological assumptions. Researchers' statements of best practice in focus groups applications are then incorrectly informed by these assumptions. My epistemological assumptions follow Kitzinger (1995) and Onwuegbuzie et al., (2009) in that I follow the contextual constructivist epistemology.

Constructivists believe that the learning process should include ongoing self and peer assessment. I utilized two focus groups consisting of teachers and principals. One question fundamental to these focus groups was what professional development or learning strategies or supports worked best for teachers and principals. Formative assessment occurs throughout the learning process and focus groups mimic this as they are a sharing and learning process rolled into one. The teachers I interviewed all had volunteered to be part of professional development

teams that focused on formative assessment (AfL). The principals had all been in schools where they helped staff shift pedagogy or had been involved in supporting teacher professional development. They had strong knowledge of what worked and what did not. I followed Morgan's (2008) belief that a common practice was to select participants who share a similar perspective toward the topic in the hope that this will generate active exchanges.

Focus Group Methodology

Focus groups are an interview style designed for small groups of unrelated individuals who are led by an investigator in a group discussion (Berg & Lune, 2012). This discussion should be focused on a particular topic and this allowed me to collect data from multiple individuals simultaneously (Onwuegbuzie et al., 2009). Morgan (2008) asserted the key to focus groups was how the participants' discussion is an integral part of the data collection. Focus groups allow researchers to gather data in a quick, efficient and non-threatening fashion. This method was best suited to this research as the groups' answers provided insight on organizational concerns and issues around teacher professional learning and development (Krueger & Casey, 2009).

Kitzinger (1995) perceived focus groups as particularly effective when surveying teachers' knowledge and experiences and should be used to examine both the what and why of teachers' thinking. Focus groups are widely used to sample peoples' experiences and are effective for exploring the attitudes and needs of staff. The group interaction is one of the focus group's advantages. In research that deals with leadership and its ability to affect staff, this methodology is particularly effective.

Focus group sessions. The two focus groups were hosted at a high school, in an effort to make it convenient for all to attend. The participants were selected as a purposive sample in a

non-random method. The principals or vice-principals were familiar with implementing change or shifting teacher pedagogy or mindsets. They had all been in schools where there was a need for teacher development around formative assessment. They had also worked with staff to assist them in developing or changing their practice.

The focus group interviews were structured but allowed for questioning that followed where participants went in their discussions. The interview process allowed for a richness of conversation that may not have evolved in a simple one on one interview process. In addition, talking to two different groups, with two different job functions allowed for insight into the worlds of each group. The focus group employed a tactic called the *extended focus group* (Berg & Lune, 2012). This tactic permitted the participants to view the questions before the focus group session and access their prior knowledge. It gave them time to develop and think about their personal responses and pedagogy. The group discussions showed they had a strong understanding of the subject area and questions. It created an interesting insight on organizational strengths, concerns and issues. It also allowed for a compare and contrast analysis of the discussion from each individual group. The focus group discussions lent itself to the nature of effective and ineffective professional development. Participants were able to reflect on the answers or statements of other's and create a greater understanding of their own and other's perceptions of school cultures, professional development or learning and student learning. The advantages to the extended focus group method were that the participants had a stronger understanding of why they were there and what they should think about. It allowed the moderator to draw out the opinions of all participants and minimized individuals monopolizing the discussion.

Duggleby (2005) noted focus groups offer participants the setting to discuss concerns, share ideas, opinions and provide possible answers. This lent itself to participants brainstorming possible solutions to this researchers' fundamental question. Focus groups could create a totally new understanding or solution from their discussions. Freeman (2006) observed that participants' interactions helped clarify both similarities and differences in what they value.

The guided collected conversations were a challenging endeavour. Focus groups are popular because you can gather a large amount of data in a short period of time. The challenge was that I needed to be well prepared prior to the focus groups and needed some skills to be an effective focus group moderator (Berg & Lune, 2012). These skills were apparent when this writer had to monitor the digital recording of the sessions, take notes about the interactions, interpret body language or key ideas and moderate the group. I followed Berg and Lune's recommendations and only had 10 pre-planned questions. A second challenge was in the analysis of the focus group data. The challenge was that these focus groups encouraged group interaction but frequently had to rely on individual impressions or viewpoints that were hard to isolate from the group context they were taken from (Wibeck, Abrandt Dahlgren & Oberg, 2007). Kitzinger (1995) suggested the way to include the group dynamic and interactions is through the coding process. Coding forces researchers to create special categories for certain types of interaction, such as "questions," "deferring to the opinion of others," "group dynamics," or "changes of mind" (Kitzinger, 1995).

Ethical Concerns

There were several ethical considerations to recognize and these considerations were presented and reviewed by the UNBC Research Ethics Board. The participants' or interviewees' identities were protected so that the information collected did not harm them. The teachers and

principals involved in this research were from a relatively small educational community and might be identified and while anonymity cannot be guaranteed, it was critical. Names of the educators were changed and pseudonyms were used. The genders of the pseudonyms were kept the same and to clarify in the reader's mind a (p) or (t) was added after each name. The (p) identified the speaker as a principal and the (t) as a teacher. There were pre-existing relationships between participants and the researcher and it was made clear that there was no requirement to participate. Informed consent from all participants was sought and given. Participants were asked to give a verbal commitment of time to the focus group sessions. Just before the focus group convened the aims of the research were clearly explained and on this basis written permission was given by each participant in this research. In addition, the school district's Principal, Curriculum & Instruction gave written permission to the researcher to conduct the research. All participants were informed of their right to withdraw from the project at any time without penalty. Participants were then informed about the process of data transcription, analysis and disseminations which then ensued (Parker & Tritter, 2006).

Research Procedures

There were two distinct focus groups, one involved teachers and the other principals or vice principals. Several of the participants in the teacher group knew each other as they had participated in an assessment team which focused on understanding and implementing formative assessment strategies. These teachers met once a month to discuss *Formative Assessment in the Secondary Classroom* (Clarke, 2005). There was a level of trust amongst these teachers which was essential for the group discussions about their professional learning or development. Several of the teachers had been involved in different assessment teams. The teacher participants were purposively selected because they trusted each other and had prior knowledge of formative

assessment and which strategies helped them change their practices. Parker and Tritter (2006) demonstrated that selection is vital to the look and quality of the focus group interaction and hence the type of data and the extent to which the participants share their personal insights. The teacher focus group was selected as they had experience in what successful professional development strategies looked like.

The second group involved principals or vice principals who either promoted or participated with teacher learning in their schools. In this research, I will call this the *principals* group. This group knew each other professionally but did not necessarily have the same trust as the teacher group. There was a concern that social dynamics might play a role but it was not evident in the focus group or during the coding. Principals were chosen because they shared the experience of working with teachers on their professional development. They were purposefully selected because of this shared experience. It is this common communicative ground or shared experience that Winlow et al. (2012) supports. Palys (2008) supports these type of groups as the participants felt comfortable talking together and it allowed for some lively conversation about a topic they were interested in.

The focus groups were kept small, in my case, four principals and five teachers, in an effort to effectively draw out information from participants (Berg & Lune, 2012; Onwuegbuzie et al., 2009; Wibeck et al., 2007; Winlow et al., 2012). McLafferty (2004) felt focus groups needed to be large enough to provide the data needed but small enough not to be unwieldy or deter proper participation. There was some concern about the availability of participants so Onwuegbuzie suggested over recruiting. In my case it was good that I over recruited as I had several last minute cancellations for each focus group ending up with the numbers listed above.

The consensus for the duration of the focus group meeting times was from one to two hours (Wibeck, et al., 2007). Focus groups, in this study, lasted approximately two hours.

Data Analysis

Content or data analysis is deliberate, time consuming, and detailed and it interprets a set body of information in an effort to categorize them into themes, concepts, biases or understandings (Berg & Lune, 2012). As a social constructivist, I used the interpretative approach to data analysis. This is merely an extension of the focus group methodology.

Transcribing and coding. The focus group was digitally recorded, transcribed and coded. I took notes during and after the meeting. Transcript analysis is considered the most rigorous and time consuming method of analyzing raw data (Kitzinger, 1995; Onwuegbuzie et al., 2009). The two focus groups were laboriously transcribed into Microsoft Word. It took between seven and ten hours to transcribe each focus group. Davidson (2009) stated there is shared belief that transcription is "a process that is theoretical, selective, interpretive, and representational" (p. 37). There was no way to entirely transcribe both conversation and interaction without some loss of data as oral language was not totally transcribable into written text (Davidson, 2009). My transcription documented the verbal comments made by each participant and my notes from the focus groups were used to relay important interactions between participants. Notes were taken during the discussions to capture the reactions and the body language of the participants. This enabled the researcher to interpret observations as well as the narrative. Transcription did not reflect the times I guided participants back to the question at hand. Rabiee (2004) felt that with the volume of data collected you needed to maintain a clear focus on your research question. The extended focus group method helped minimize this problem as the moderator and participants all had the guiding questions. Lapadat and Lindsay

(1999) suggested that transcription was not just a product but a process. They clarified that in the process of transcription understandings are derived but warn researchers not to link their theories to their research or be constrained by their own interpretations. Finally, Auerbach and Silverstein (2003) stated that you need to create your playbook prior to the focus group. In that playbook you should keep focused on your research concerns, epistemology, research question and goals. My playbook allowed me to be focused in both focus groups and when I coded.

Coding is an inductive approach which means that the researcher selects particular words, phrases or descriptions to determine themes or patterns within a set of data. Saldaña (2009) demonstrated that there needed to be several cycles or layers in the coding process. The coding process was enhanced by NVivo 10. It was a concept map, highlighter, and analysis program. NVivo 10 software let me put coding theory into practice and addressed a key challenge faced by qualitative researchers; simplifying the coding process (Berg & Lune, 2012; Saldaña, 2009). NVivo 10 gave me the ability to link, annotate, and create relationships or reshape, group or reorganize coding or nodes. NVivo, and computer-assisted qualitative data analysis software (CAQDAS), support triangulation and enhance the level of exploration.

Saldaña (2009) warned that coding acts as a filter and you should be aware of the following filters: personal involvement, types of questions and responses and the detail and structuring of field notes. Coding was also seen as heuristic, which is when, you explore your problem to solve your question without a formula to follow. Researchers proceed from coding to creating categories and these then lead to themes. Rabiee (2004) called this the mapping and interpreting stage. In the process of coding I needed to see the relationships and links between the data as a whole. When I felt I had the big picture I realized I had reached the saturation point of coding. It is this iterative process that helped me to derive my theories.

The process. The focus group transcription was a time-consuming process. I had to listen to what was being said and type that into Microsoft Word. The fidelity of the digital recording was good but frequently I had to repeat sections as it was hard to distinguish some key words or the pace of the recording outmatched the pace of typing. While I was transcribing I was also looking for trends, key ideas or themes. Coding was a selective and interpretive practice that did not entirely transcribe the oral language into written text. I used an inductive process to select particular words, phrases or descriptions to determine the common themes that became evident with re-reading and coding. Emergent coding was employed to interpret the data. The transcription was coded using the comment feature in word processing software. This initial coding allowed for a first impression or preliminary examination of the data where themes relating to the focus were identified. I was looking for themes that focused on strategies principals used and which both teacher and principals felt helped or hindered changing teacher pedagogy. The initial use of the comment feature allowed for a checklist to be created to further analyze the transcriptions. This checklist created themes that the data from the teacher and principal into which the focus groups could be grouped. The transcription was then imported into NVivo 10 software and the themes were converted into "nodes." Nodes are a collection of codes that are related to a specific theme. NVivo is computer-assisted qualitative data analysis software (CAQDAS) which aided me in my search for an accurate and transparent picture of the data. The use of CAQDAS was also taken to increase the validity of the research by allowing for a check or audit on the preliminary data analysis. NVivo 10 allowed me to see patterns, frequently spoken words and visually connect ideas and findings. Themes were identified during this process and recorded in a separate area. Occasionally it was hard to attribute the correct name to the speaker and I had to carefully review entire passages. Once the recording was transcribed, I

had to identify initial sets of words or phrases that were considered interesting. This secondary cycle of identification was compared to the primary list generated from the data in Microsoft Word. These data formed the primary list of nodes (themes).

Nvivo 10 classifies each of the focus group transcriptions as a separate *source*. Themes were derived from each source separately and then collectively. Then whole scale coding was employed. Words or passages were highlighted and then a code was attributed to it. Each coded item was then linked to a *node*. A node is virtually filing box where you gather related themes, words, or areas of interest. Initially, I created 77 nodes. NVivo allowed me to visualize these coded sections in several different ways. The primary visual was a text reference. This also had a coloured coding stripe applied to it so I could visualize it when viewing it in either Node or reference mode. Each node could be viewed numerically; listing the number of times it was referred to, or referenced, and the percentage of the text it covered. This percentage of coverage indicated the percentage of the source (teacher or principal) that was coded at the node. These data were originally viewed as important but after reflection, they became less important because they were subjective relying on how much of a sentence or paragraph was highlighted or coded. It was useable for overall trends but not for comparison amongst themes or codes. Both sources were coded and I found a large number of nodes. A hierarchy of nodes was then created. Through an iterative process the final document had nine major nodes (themes) and 68 linked sub-nodes. Nodes helped create coherent categories that were used to summarize or bring meaning to the transcription. Each node referenced both the teacher and principal focus groups which allowed me to compare and contrast the emphasis attributed by each group to that theme. The principals group had 494 referenced sections and the teachers had 385 referenced sections.

NVivo allowed me to run a variety of queries, or questions, about my data. Two primary NVivo queries used to review the data were word frequency and matrix coding queries. The word frequency queries were not used at the start of this analysis but after the themes or nodes were developed. They were used as method of validating the coding or themes. The word frequency queries created lists of the most-frequently occurring words in my data. I used this to create lists for the teacher, principal, and combined focus group. I set the specification to display the 100 most-frequently spoken words. This query allowed me to specify on a five-point sliding scale between exact words and similar words. I set the scale to four which gave me the ability to link similar words, such as employed in a thesaurus. The word frequency query results display in four different ways, of which only two were useful to my research. The word cloud visualized the 100 most-frequently occurring words, or synonyms, with the most common appearing in the largest font. There were three word clouds created; teachers (Figure 1), principals (Figure 2) and combined (Figure 3). These word clouds also allowed me to compare and contrast key themes or codes. The second way of displaying the word frequency results was in a summary chart. Three summary charts (Tables 1, 2, and 3) were created to display key words, how many times it was actually counted, the frequency of the word relative to the total words counted and the type of similar words. This information was useful in verifying themes and codes, and comparing and contrasting the word frequency usage between teachers and principals.

Conclusion

Chapter 3 provided a description of the research design, focus group methodology, and data analysis followed in the research. The choices I made were influenced by my interpretivist view and the particular lens of social constructivism. The methodology employed a qualitative

research design. These choices were best suited for this type of research. Chapter 4 will present the results of this study and Chapter 5 will examine these results and the implications thereof.

Chapter 4: Results

Introduction

Chapter 1 provided the rationale for studying the fundamental questions in this thesis, specifically, identifying practices or conditions principals and teachers characterize as effective in enhancing teacher learning or professional development. Chapter 2 reviewed the current literature that related to the role of the principal in teacher professional development. In addition, it focused on what practices best allowed teachers to utilize assessment for learning (AfL) in their classrooms. Chapter 3 framed the methodology in a contextual constructivist point of view and the iterative steps employed in the coding process.

This chapter reports the results of the qualitative data analysis. It begins with an overview of the emergent themes or nodes. A node or theme is a collection of references about a specific theme. It then breaks them into sub-nodes and then data presented from those sub-nodes.

Most-Frequent Words or Word Clouds

NVivo 10 was used to create three-word cloud visuals (Figures 1, 2, and 3) where each chart creates a visual representation of the 100 most-common words spoken by the focus groups. Word clouds were created when a word frequency query was run using the following criteria: all exact words, all synonyms, any word that had the same stem and words with a similar specialized meaning. The weighted percentage column displayed the most-frequently occurring word from a group of similar types of words. The weighted percentage assigned a portion of the words frequency to each group so that the total did not exceed 100%. The weighted frequency was used in creating the word clouds in Figures 1, 2, and 3.

The word cloud validity is increased by understanding that this search does more than simply count or sort words. If this was done, we would lose the emotion or connections of words using this method. Words are frequently context dependent and NVivo 10 was configured to

capture the context of the word. A word frequency query helped organize my data into broad categories. This process is iterative and the query then focused by using the keyword-in-context (KWIC) technique. A key word in context query searches the text for every use of a particular word or phrase with a number of words on either side to provide information on its context in the document. Then I reviewed the top 5 words within each category to ensure they were within similar contexts. The word counts and word clouds were a simple way to learn. The frequency of the words tended to provide more salient information or patterns of information. Prior to running the search I employed a stop list; where a list of common words, like prepositions or conjunctions was removed. This was my first level of open coding.

Figure 1 represents the most-commonly used words by Teachers, Figure 2 the most-common words used by Principals and Figure 3 is the combined used words by both focus groups. These visual representations highlight what is important to each group. Figures 1, teacher focus group word cloud, Figure 2, Principal focus group word cloud and Figure 3 – combined teacher and Principal focus group word cloud are an interesting way to connect to the guiding questions. This tab displays up to 100 words in varying font sizes, where frequently-occurring words are in larger fonts.

Figure 1. Teacher focus group word cloud. 100 most-frequently spoken words

Table 1

Five Most-Frequently Spoken Words in Teacher Focus Group

Word	Count	Examples of Similar Words
Change	605	Action, progress, transform
Things	183	Area, content, structure
Group	182	Body, people, team
Activity	379	Busy, engagement, workshop
Think	380	Absorb, consider, know

Note: The most-frequently occurring word in that group is listed in the word column. Weighted percentage includes all similar words and the count indicates the number of time the most-frequent word is used.

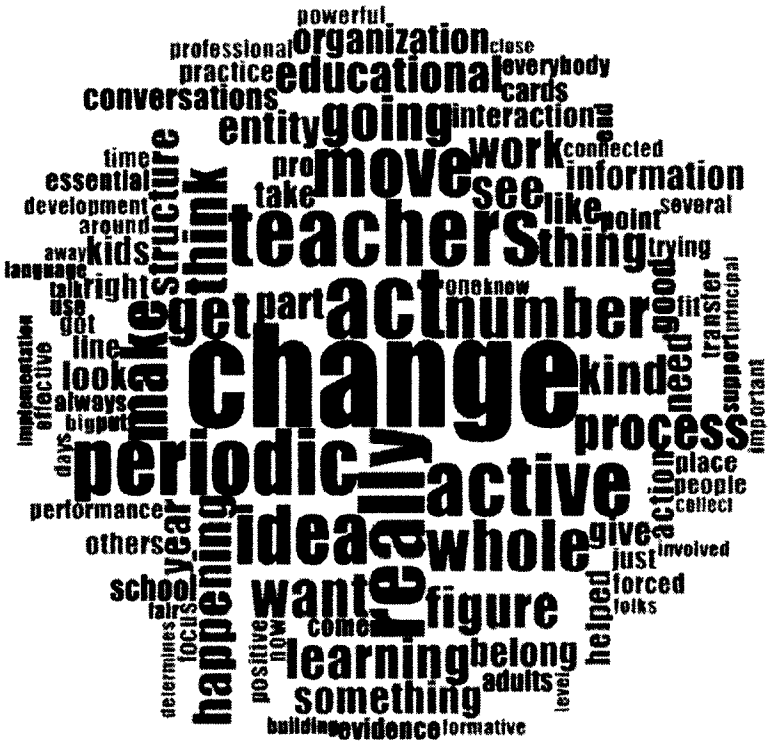

Figure 2. Principal focus group word cloud. 100 most-frequently spoken words

Table 2

Five Most-frequently Spoken Words in Principal Focus Group

Word	Count	Examples of Similar words
Change	856	Address, better, shifts
Act	572	Implement, manipulate, push
Really	79	Actual, real, truly
Teachers	88	Teacher
Periodic	277	Hours, semester, time

Figure 3. Combined Teacher and Principal focus group word cloud. 100 most-frequently spoken words

Table 3

Five Most-frequently Spoken Words in Combined Principal and Teacher Focus Groups

Word	Count	Examples of Similar words
Change	1473	Complete, shift, turnaround
Act	1004	Choice, find, going
Activity	897	Assignment, check, instruction
Really	105	Actual, truly
Think	828	Absorb, believe, favour

Table 4

Three Parent Nodes / Themes: Teachers and Principals References

Parent Node	Principal Focus Group	Teacher Focus group	Total
Professional Development	185	183	368
Leadership	172	86	258
Social Interaction	99	109	208
	456	378	834

Parent Nodes or Themes

My first level of coding entailed looking for distinct concepts from the word count and word clouds. The second coding level involved reviewing my notes from the focus groups. This allowed me to create nodes, or themes, and start creating sub nodes or themes. I then applied axial coding to these themes and reread the text. I confirmed these themes and explored and linked different themes. NVivo 10 labels themes as a node. After axial coding and the creation of the word clouds, I had nine nodes and 68 sub nodes. I created 834 coded references. There were 456 references from the principals' focus group and 378 references from the teachers' focus group. These nodes had overlap. These nodes and sub nodes were then reviewed, refined and then narrowed down into three major nodes or themes (Table 4). There were three major nodes and these were: professional development, leadership, and social interaction. Any sub nodes that had a small number of references and were not practically significant were discarded. Tables 5, 6, and 7 list only the essential nodes or themes.

Professional Development

The Professional Development node yielded 12 distinct sub-nodes (see Table 5). The top six sub nodes, by frequency (i.e., included seven actual sub nodes due to an equal number of

Table 5

Professional Development: Amount Teachers and / or Principals Referenced Them

Sub Nodes	Principal Focus Group	Teacher Focus group	Total
Teacher Learning	21	25	46
AfL	8	21	29
Engagement	18	19	37
Reflection	16	19	35
Data	7	20	27
Setting	3	12	15
Consistency	18	11	29
Classroom	7	19	26
Top down vs Bottom up	35	12	47
NIDs	14	1	15
Workload	14	1	15
Wise practice	14	16	30
Total	175	176	351

responses) were *Top down vs Bottom up* (47), followed by *Teacher learning* (46), *Engagement* (37), *Reflection* (35), *Wise practice* (30), *AfL* (29), and *Consistency* (29). These sub nodes accounted for 72% (253 of the 351 total responses) and will receive full descriptions in the following sections. The remaining six will be discussed under one section in the interest of reducing redundancy.

Top Down Versus Bottom Up. Forty-five entries were coded from the principals' focus group compared to 14 for teachers. Teachers discussed three concepts that were a challenge: enforced accountability, teacher driven agendas, and their involvement in School Plans for Student Success. Principals talked about how to engage teachers and have them own their own learning.

Ava (p) highlighted that many teachers were confused about the difference between in-service and professional development. Many staff felt that the definition of in-service is paid training organized by the school district while Professional development was activities that teachers were involved in outside the classroom. This confusion has teachers refusing to professionally develop unless they are paid for it. Ava (p) stated

> I think we get mixed up sometimes between in-service and pro-d. I think there is that. Sometime people think they are giving you pro-d and it is really in-service and it is dead boring. I guess if you think back about what truly is meaningful professional development; even unfortunately, that is one of those jargonee things about growth plans. Pro-d is like yuck. It is a term that you are sick to death of because it has been fought over and politized.

Noah (p) discussed trying to utilize any teaching learning time available, whether or not it was inside instructional time. Principals discussed using staff meetings to initiate discussions about learning but felt teachers' were resistant to using that venue for learning. Staff meetings were held once a month and Ben (t) explained that teachers would not allow any learning discussion to last longer than 30 minutes. This acknowledged Brad's (p) comments that when teachers were not running learning sessions then they would bail on any principal driven learning opportunity. Ben (t) responded to professional development in staff meetings by saying

> One piece of pro-d that I can be speak about personally. It is that pro-d is injected sort of non-voluntary and I will use the example of stuff in part of staff meetings. If you go to pro-d you kind of get your brain in gear and prepare and say I am in the frame of mind. It is where I want to learn. But where it is sort of jammed in with bits and pieces here or there I kind of find that not as useful for me. The ideas are great but you do not have that space created. You cannot say here is how I am going to implement this. You need to be in the right frame of mind for pro-d. So I think it needs to be dedicated time to focus your thoughts on what you are doing

There were different interpretations of what teachers could or should be doing for Pro-D. Ava (p) felt principals have

> to keep going back to the start and we argue about the semantics of it and we spend more time fussing with that than we actually do on Pro-D. It is almost like they do not want to give themselves permission to do what is right or what they need to do.

Noah (t) took it further saying teachers felt principals frequently came into schools and were looked at as the "jerk that came in and changed things. Its true and then they have that mentality that they can beat you up." He felt teachers fought against leadership initiatives that involve changes to practice or were directed towards learning.

Teacher learning. There was a lot of discussion about teacher learning being fueled by student engagement. Teachers wanted to engage students with their learning. Teachers wanted to focus on assessment for learning (AfL) strategies as a method of engaging students and enhancing their teaching practice. They discussed AfL strategies and how these helped in the classroom. The principal focus group demonstrated passion about teachers having choice in their learning.

Teachers wanted control or ownership of their learning; some stating that they wanted to have a lot of professional development choices to pick from, and others felt there should be a limited amount of offerings. Principals felt that teachers should focus on a few areas; one of which needed to be assessment for learning. Principals discussed the need to set school structures that would support and motivate teacher learning. All the principals described wanting to change from being the driver of learning in their building to being a passenger.

The teacher focus group concentrated their discussion on sharing best practice in their classroom. This focus on the classroom appeared to be a two way street as it improved engagement for both teachers and students. It was also acknowledged by both groups that they might fail in their effort to engage students but they needed to try something new. Principals acknowledged that their staff wanted to give workshops on what they knew or were doing in their classrooms or as Ava (p) stated "it was more meaningful to be giving the workshops than receiving from the workshop." Inspiration for teachers came from feedback they received from both their colleagues and the students in their classrooms. Principals revealed that if you could get teachers involved in collaborative and ongoing learning conversations there was professional development growth. Principals were concerned that teachers disengaged from learning conversations during the BCTF job action in 2012 and that this may have become a permanent change for some.

A strategy that helped in teacher professional learning was teachers working with other teachers. Emma (t), a teacher who worked in both elementary and secondary schools, highlighted this with her statement:

> Working with others and having that group that you could say things with. For example at my school we had a time specifically dedicated for collaboration and we would sit down and

> then we would say things like, which students are having trouble with understanding this, so we would sit down and say what are some strategies and then we would go back to our classes and we would talk about it and we would get back together and we would look at what worked and what did not work. I think having the other people to talk to about whatever you are trying to work on really does help and to try it and to come back and talk about it again some more and go back and tweak it. So it is like you are getting that constant feedback which is all about formative assessment.

This powerful quote exhibits that there was not one specific strategy, but more of a structure, that is needed for effective learning to take place. Teachers did not discuss how the structure had been set up by their school leaders but principals recognized how difficult it was to set up these structures. Teachers discussed how learning could also be enhanced by book studies. Teachers and principals agreed that the reading had to be "concrete" and had to be relevant and useful in their classrooms.

Principals were excited to discuss their role in teacher professional development and how they supported teacher learning. This was a consistent message from all and principals felt that this was a fundamental part of their job. They wanted teachers to have and share their professional development plans.

Engagement. There were 37 coded references linked to teacher engagement with professional development. The most repeated comment, by both focus groups, questioned the value or relevancy of professional development. Ava (p) thought principals' had a clear understanding about the need for professional development and, at times, had to show this relevancy to teachers. This was accomplished by taking teachers to conferences, talking about educational issues, setting up teacher Learning Teams, and by helping teachers share what they

were doing in their classrooms. These strategies were also confirmed, by teachers, as methods that helped them get engaged in professional development.

Reflection. A common thread with both focus groups was how "good" professional development allowed teachers to reflect on their own teaching experience. One reflection shared by Nick (t), a secondary teacher, was when teachers "marked the same thing [provincial exams] and lots of them with random teachers and saw what's my assessment like and what the other person thought on it was." Teachers talked about their need to norming assessment practices and then reflect how they could use these in their own practice. Ethan (t) "tried to be intentional about personally being reflective of my work." Several other teachers felt that being reflective during or after NIDs was challenging as these activities did not connect to classroom.

Wise practice. These references were linked to the concepts of what focus group participants or current articles suggest are good teaching methods. Table 5 identifies there was a small imbalance in references between the two focus groups. Principals made more statements about what wise practice should look like.

Both focus groups discussed a need for teachers to be a part of ongoing Learning Teams. Focus group members thought that professional development, facilitated by Learning Teams, targeted student learning. Both groups agreed teachers should feel some pressure when reporting to a learning team as this would increase engagement and force teachers to have a continuous learning focus. Emma (t) stated "I think having other people to talk to about whatever you are trying to work on really does help you try it and to come back and talk about it again. It puts the pressure on you to be involved." Work with their peers put pressure on teachers to complete their tasks.

Teachers believed wise practice included increasing their understanding of theory and demonstrating its practical application in the classroom. Ethan (t) felt that strategies grounded by theory were critical in his professional development.

> I was thinking about that too when I was thinking about formative assessment in our context at high school and I was talking to you guys [Learning Teams] and you were coming back from a conference and you coming with a bunch of Marzano or other resources and sharing the research. For me that is what kind of grounded me more in formative assessment, like looking at it from a research and evidence perspective. I also think it was influential at that time the district was also pushing its big ideas in formative assessment and there was some guiding principles around it. There was something that we could anchor our formative assessment practices to as teachers within the school district and then likewise the modelling who is doing it and the feedback from teachers and some from students. For me after years of practice and years of reflecting on my practice I am starting to feel it's where I want to be.

Emma (t) pointed out

> that if we go to a learning team and let's say we discover this wonderful idea that we then go back to our classrooms and try it and come back and discuss it and then we can get a lot further ahead that way and putting it in to practice and tweeking what we talked about. I just found that really powerful.

Teachers need to see why they should change practice and how this applies in their classroom.

Both focus groups identified that the Learning Teams needed to progress, initially, at an unhurried pace. Ben (t) and Noah (p) both agreed for formative assessment professional development to be effective you needed to start with "baby steps." They wanted a road map that

clearly laid out how things were connected and what this looked like in the classroom. Noah (p) felt this "developed a culture of learning in his school." It also allowed for positive social interaction focused on learning between teachers and principals.

One practice that teachers wanted included in professional development was a physical component. Nick (t) commented that

> this is neglected in a lot of these professional development opportunities. Where we went we needed to walk there and we needed to move and go to a new building which allowed you to see fresh perspectives... and this new information was better absorbed when it wsa combined with a physical aspect.

Assessment for Learning (AfL). Table 5 indicates that the teacher focus group talked significantly more about assessment for learning (AfL) than did principal focus group. There were 21 coded AFL references for teachers and 8 by Principals.

Teachers focused on the strategies they employed in their classrooms to help students learn. Ethan (t) espoused how AfL helped develop teachers' abilities around the district, stating

> I also think it [AfL] was also influential at that time when the district was also pushing its big ideas in formative assessment and there was some guiding principles around it and there was something that we could anchor our formative assessment practices to as teachers within the school district and then likewise the modelling who is doing it and the feedback from teachers and some from students and for me after years of practice and years of reflecting on my practice I am starting to feel it's where I wanted it to be.

Assessment for learning was seen as common language that was supported across the school district. The teachers' comments centred on how it allowed teachers to frame their classroom practice and gave them some concrete strategies to use. It allowed them to understand and then

differentiate between formative and summative assessment. They talked about how formative assessment allowed them to share what they were doing in their classrooms, with students, and how this helped them develop their teaching skills. It allowed teachers to use any of the six strategies of AfL, trial it with students and then get feedback about it from students and teachers. Teachers vocalized that this was a metacognitive process. Nick (t) recognized this when he stated "It is the same thing with students they need to get the feedback as well. So I think the scaffolding with teachers is the same thing with teachers and students." This process allowed teachers to take a theory and see what this looked like in their classrooms. They discussed wanting colleagues to model their practice. Teachers valued the practical application of AfL versus reading articles about it. Teachers valued a consistent language and focus from colleagues, school and district leaders.

Principals felt that the district focus on AfL facilitated discussion about pedagogy and teaching Ava (p) expressed that AfL shifted teachers from looking at "things outside the classroom to things that happen in the classroom that improve learning... It changed things so teachers would look at their own teaching or practice." Principals supported this learning by funding AfL Learning Teams called Secondary Assessment Learning Teams (SALT). Learning Teams consisted only of teachers. They were district financed and supported groups which focused on teachers collaborating about inquiry-based learning. Principals acknowledged that Learning Teams were the primary method of supporting teacher professional development. AfL discussions allowed principals to help teachers recognize that their self-assessment of AfL knowledge was higher than it actually was. Ava (p) discussed the practicalities of this as

> teachers were asked to self-assess where they were at and most said they were at functioning at a level three or four, out of four, when using the six big strategies in the

> classroom. Then we had people working in groups and developing the criteria for level one, two, three and four…So they did that and then they went back and self-assessed and they were only at twos.

Teachers and principals worked together to build common language through AfL. Dave (p) stated

> we were stumped at the beginning because what were we going to talk about as we all teach different things and it was a good struggle as we were able to able to find commonality anyhow as we talked about rubrics and essential learning outcomes and were able to develop a common language that enabled us to focus on student learning.

Principals also discussed how a focus on student learning ended with the British Columbia's Teachers Federation's job action of 2012. District, school and teacher initiatives, designed to improve student learning, were put on hold. Noah (p) voiced the he put considerable time into supporting teacher development but that job action halted teacher professional development in his school.

Both focus groups shared similar thoughts about the strong benefits of assessment for learning. They identified that AfL helped developed a common language amongst educators and created a sense of community in their schools. Principals felt AfL and Learning Teams broke down barriers to the isolationist nature of the current school system. Morgan (t) commented Learning Teams

> helped me learn that I am not alone and that others struggle, others are willing to try things and I have also learned that I am also doing what others are doing. So I feel more of a community versus one person standing alone in front of all of these kids.

Teachers felt that teams supported their classroom practice, and to some extent, enhanced student learning. Both groups valued the ability to have a consistent and ongoing dialogue about AFL.

Consistency. Teachers and principals voiced that there needed to be regular, dedicated professional development days. Ben (t) explained "It always seems our professional development days are scattered and random. They do not seem consistent from year to year but they seem tacked on. But if it was a regular third Thursday of every month it would be a better professional development opportunity." Emma (t) explained

> we need some consistency and you're going to have professional development you're going to want something that is long term like you were saying. Like put it into practice and try it and struggle with it and go back and talk about it some more. That is what I find the most powerful and useful.

Ava (p) discussed how continuity was her "biggest struggle as we are trying to keep the focus" for teachers. She also wanted to ability to have a consistent, ongoing learning theme; not something that changed yearly.

Other sub nodes. Due to the fact the following sub modes only accounted for 28% of the overall responses, they will be discussed briefly in this section.

Data. Table 5 displays that teachers discussed using data, to guide practice, twice as often as principals. Teachers and principals appeared to have a different definition of data. Teachers were looking at what they called *valuable data.* Ben (t) recognized "There is value in the data but it has to be valuable data first. It cannot be just data for the sake that it is something that can be measured." Emma (t) identified that they found it hard to get meaningful data and that she needed to have support in understanding what data was "meaningful data." She felt the best data came from student input about their learning. Nick (t) wanted "Something easy… where students

did surveys about something they feel was important in their learning." Compared to the teachers Ava (p) felt that most of the data that was used "was artificial" and that teachers need "to develop and use data that is real life." Noah (p) felt some staff focused on "external data, such as student behaviour," which was not related to student learning. Ava (p) wanted to shift teacher's mindsets from looking at data to "using evidence to guide what you do as a teacher."

Classroom. Teachers had considerable more coded references to the classroom context compared to principals (see Table 5). Teachers were unified about the need to have professional development connected to their classroom practic: sharing experiences about what they have learned in their classes; and AfL strategies they used in their classrooms. Ethan's (t) professional development involved "a lot of time networking and sharing resources with other professionals. A lot of that happens over Twitter looking either at primary work or peoples own personal experience or reflections through all of that." Morgan (t) and Ben (t) felt their professional development needed to make significant changes in their classrooms or it wasn't a worthwhile endeavour. Teachers wanted to share what they knew about best practices and what that looked like in their classroom. They identified that this developed common interests and created a higher level of engagement. Professional development activities helped create an intentional or focused part to daily teaching. Morgan (t) felt that AfL professional development was richer if teachers could watch other practitioners in the classroom or "how it was put into play." Teachers wanted exemplars of strong practices which would allow them to see both the planning and implementation of any strategy. Ben (t) felt the only way to enable the big picture and day to day reality was to be able to have "longer term professional development on the same theme."

Another challenge was teachers' belief that they could not be away from their classroom, or students, for any extended period of time. A stressor came from their need to prepare for their

teacher on call. Nick (t) suggested a way around this was to have teachers come and work in your classes as a way of professional development. Nick (t) also commented that there were natural times during the year when secondary teachers could better integrate professional development into their day. His suggestion was to use the non-instructional time during the two exam periods in secondary schools. He felt he could use the time during exam weeks to focus on teacher learning.

NIDs. Fourteen Non-Instructional day references came from teachers (table 5). Noah (p) discussed that schools with a learning culture, had productive NIDs. Brad (p) talked about how the five Non-instructional days "cause so much stress in the district in terms of who owns them and who runs them, what we can do and what we can't do and almost using that as to get what you want." Ava (p) felt NIDs were arbitrarily placed. Teachers and principals commented that 5 district non-instructional days were not linked to long term professional development days. Ben (t) felt the NIDs were "scattered and random" and did not have "any consistent or clear focus." Morgan (t) was concerned who initiated professional development activities, stating "it is also who has control over those [NID] pro-d days? Are they open to us or are they admin led? Which chops up pro-d further. Which leads to us to do something admin wants." Brad (p) revealed

> Well I think that sometimes when you get some really powerful union people that want to see themselves as a single entity off in my little room; instead of a group of teachers working together as a class. I can see them throw out the union thing this is my NID and I can do whatever I want.

Workload. Noah (p) felt that when you went away for learning, a conference or professional development that there "is a mountain of stuff I have to get through" and then there is "the time and energy that it takes to implement change or learning." Dave (p) felt a way to

minimize extra workload was to keep the learning within the school. He said "It is just a little bit less of an imposition if you're in your school. You know that stuff is taking care of just down the hallway."

Setting. Teachers liked to leave their school when involved in the early stages of professional learning. In specific Nick (t) talked about leaving during the "theoretical" or "planning stages." Ben (t) felt it allowed teachers "to get their brain in gear and prepare and say I am in the frame of mind where I want to learn... it needs to be a dedicated time and place to focus your thoughts on what you are doing." Morgan (t) wanted "a different spot where we get out of the school... and we were inside and outside and we were talking about learning." Both Morgan (t) and Nick (t) felt that it was an incentive to go to a different setting. Principals did not get specific about where professional development should take place.

Leadership

There were seven sub nodes under this node. Accounting for 62% of the overall responses were *District, Provincial, and System Issues* (62), *Pro-D Strategies Requiring Changes* (41), and *Time* (36). The remaining four sub nodes will be discussed under one section since, combined, they accounted for 38% of the overall responses (see Table 6).

District, provincial or system concerns. There was considerable complexity to this theme. One important issue for both teachers and principals was the discussion about who controlled or owned teacher professional development. The principal focus group spent 13 percent of the leadership discussion time on this sub-theme. Teachers voiced a contradictory message when they rejected the idea that professional development should be mandated or have accountability but wanted principals to organize and set up a consistent, regular, school based

Table 6

Leaders: Amount Teachers and / or Principals Referenced This Theme

Sub Nodes	Principal Focus Group	Teacher Focus group	Total
Leader	13	7	20
District, Prov., & System Issues	43	19	62
Change Process	17	0	17
Pro-D Strategies needing change	21	20	41
Focus	12	10	22
Time	16	20	36
Resources	16	9	25
	138	85	223

message when they rejected the idea that professional development should be mandated or have accountability but wanted principals to organize and set up a consistent, regular, school based time to develop their practice. Principals on the other hand felt challenged by both of these ideas.

Principals felt the 2012 British Columbia Teachers Federation strike seriously affected teacher professional development. During job action teachers refused to write report cards, supervise students outside of instructional hours, attend staff meetings, administer standardized tests or communicate with principals about routine matters. This stopped most dialogue about support for teacher professional development. Teachers indicated that they only reengaged in professional development in September of 2013. Teachers discussed that they were opposed to professional development happening before or after the instructional day. Principals talked about the challenge of restarting school wide "learning agendas" or professional development because

of the inconsistency in administrative appointments. Dave (p), a newer Principal, emphasized "that supporting teacher learning was further worsened by recent and frequent changes made in principal's jobs." Principals were being moved between schools, because of retirement and school closures, on a frequent basis. Principals felt that this movement allowed teachers to control school cultures. Principals felt that movement made it difficult to effect changes that supported student or teacher learning. Dave (p) summed it up this way

> The wheels on the bus go round and round and that is what this feels like. I am just there and I am not super deep into changing or even leading really, like were holding down the fort, we are collecting data and I have one 25 year person and a real mix and match. They aren't working together super effectively so what I would like is in an ideal world is to have some stability and I would be there and the staff would be there and we would work together for 2 or 3 years and then we could start on something. It is hard when people are constantly changing over.

Ava (p) questioned "how come our teachers either do not have the ability or they do not have the permission to develop short and long professional development plans." Principals discussed that they were unsure whether teachers were resistant to learning or were unsure how to make changes. Teachers felt consistency was important in professional development. Ben (t) wanted

> long term professional development on the same theme. If you look at our in house Learning Teams it was the same aim or thing. We would look at a little bit here and then we would come back to it and come back to it. Rather than doing September pro-d on this thing and November on that thing. It is nice to have the time in between to look at things regardless of what you are working on. I know in our subject area our professional group talked about

> doing the same thing in one project and developing it through the whole year and we keep coming back to the same thing and there is power in that.

Both focus groups wanted long term professional development but identified that this could only be achieved if both groups were actively involved.

School and district plans for student success (SPSS & DPSS) were not liked by teachers as they stated they were not in control of these. These plans were viewed as a top down initiative creating an additional workload to a teacher's job. Nick (t) exemplified the wide spread teacher belief that

> having this forced accountability of the SPSS and you have to fill in the blanks and you have to produce the documents. That is where the people feel the pressure and they cannot take the time to discuss the ideas because we have to get the document in. I think there is resentment around the idea of enforced accountability. If that piece was taken away then I think the discussion would be a little more relaxed or a little more honest and probably a little more meaningful.

Teachers felt that these plans were purely a district accountability project and Morgan (t) questioned "What am I getting out of it? I am just handing in data and then how is it benefitting me?" Ava (p) acknowledged that the process was artificial and questioned "how do we develop something that is real life and not a sixty page plan." The principal and teacher focus groups agreed that School Plans for Student Success needed to be seen, as valuable, by all school district employees as valuable. Both groups asserted that all plans needed to be part of the everyday, regular work time.

Pro-D strategies needing change. Teachers and principals had 41 coded references (Table 6) on improving professional development practices. Figures 1, 2 and 3 demonstrate that

change and its Synonyms were the most commonly spoken words. In this category they are linked to shifting practice.Teachers unanimously agreed that they did not want to listen to a lecture or have an outside expert tell them what to do. Teachers were concerned about the availability of professional development activities and how Non-Instructional Days (NID) were organized. Coding highlighted that teachers were concerned about the extra responsibility and work that they face when they left their classrooms to participate in professional development. Teachers wanted to be involved in collaborative learning within their schools but were leery of anything that had any accountability. Ben (t) stated "there is resentment around the idea of enforced accountability." Principals noticed the resistance to accountability, and added there were teachers who were active blockers to any ongoing discussion, dialogue or involvement in professional development. Ava (p) recognized that teacher "job action just gave a lot of power to the wrong voices and any power that went previously to the right voices just got taken away." Brad (p) commented about Non-Instructional Days stating "it is amazing that these five days cause so much stress in the district in terms of who runs them and who owns them, what we can and can't do and almost using that as to get what you want." Most comments focused on the need to change the current structure of Non-Instructional days.

Time. Ben (t) discussed how "longer term professional development on the same theme" was important. He defined long term as at least one year. Ava (p) agreed that teachers needed to have a yearlong focus which enabled them to have time to think about their next steps. Ben (t) felt this allowed you to have regular meeting and "it was nice to have time in between to look at things regardless of what you were working on." He also wanted to have dedicated time during the instructional day to discuss learning. He pointed out that "we all agree we have busy lives and it is hard to schedule time outside of the work day." Dave (p) said there should "be a regular

collaborative time build into the school week and release time or days scheduled during the year." Ava (p) believed that professional development should be "every four or five weeks" and that teacher should work with an established cohort.

Other sub nodes. Due to the fact the following sub modes only accounted for 38% of the overall responses, they will be discussed briefly in this section.

Resources. This node primarily reflected the need for principals to be purposeful in planning, establishing supports, structures and funding aimed at enhancing teacher learning. Ethan (t) talked about how principals supported staff going to conferences to help develop new ideas or supports and then buying the books from that conference. In particular he highlighted that Robert Marzano was a resources he used. Emma (t), Ben (t) and Ethan (t) felt appreciated when their principal gave them copies of Ken O'Connors work. They felt it was influential in helping them shift their assessment practices, in particular, how they viewed testing and marking.

Focus . Teachers and principals were in agreement about needing one clear learning focus. Both Ben (t) and Morgan (t) wanted to focus on classroom learning. Ben (t) said "I like to focus my pro-d efforts on things that I could help make significant changes in the classroom." Nick (t) felt professional development was important as long as it involved bringing it back to our classrooms. Emma (t) indicated that after collaborating with another teacher, "it was wonderful idea that we both go back to our classroom and try it." Ethan (t) explained "we do not all need to do 10 new things a year, like it is OK to do one thing and do it well. Let's be intentional about it and talk about it and let's share it." Morgan felt the focus on the classroom was critical in professional development because you need to see the kids in action and use these observations to make things better.

Leader. Principals observed that there are a variety of teaching styles and pedagogies and as Dave (p) expressed "although it is a good struggle we are working on finding a commonality." These were seen as difficult conversations but Ava (p) felt "these were easier in elementary schools than secondary." Ava (p) stated the principal's role "was to try and connect teacher into collaborative groups to review best practice and formative assessment." Ava (p) appreciated when she had discussions with teachers about their classroom practice. She stated that "this is my real job and I was having fun with that piece."

Ben (t) perceived one of the leaders' roles was to create time for teachers to meet during the instructional day. Morgan (t) thought this could be accomplished by having them set up the schedule so teachers could team teach similar types of classes as this would enable them to use the curriculum to focus on students. Morgan's (t) comments paralleled Ava's (p) in that they both felt teachers needed the principal's guidance to get everyone together and develop a common language. Morgan (p) felt this guidance would "start off everybody at the same spot and then you could grow from there and I understand that everybody grows at different rates."

Change process. How to change teacher practice or praxis was discussed only by the principal group. The word "mindset" was used 11 times by principals. Principals were concerned with changing mindsets of teachers and the school culture where student learning became the focus of teacher evolving practice (Figure 1, 2, & 3). They also wanted to develop the confidence in teachers to learn, take risks and share what they were doing in their classrooms. Ava (p), a seasoned principal, felt this went beyond being

> just an idea that it is nice. It is something we need to do but how do you tap into getting productive stuff happening and which builds into everybody needs, so they get some down time to percolate and think about stuff?

Social Interaction

There were seven sub nodes under this node. Four of the seven accounted for 79% of the overall responses: *Community* (45), *Teacher Voice* (43), *Shared Learning* (35), and *School Culture* (28) (151 out of 204 total responses). The remaining two sub nodes will be discussed under one section since, combined, they accounted for 21% of the overall responses (see Table 7).

Community. Table 7 indicates that principals had twice as many coded references compared to teachers. Community, in general, referred to what processes group participants felt created, supported, or enhanced their educational community or family.

Ethan (t) commented that he spent a lot of time networking and sharing his resources. He commented that he shared within his school but was better able to connect with more "like minded educators" using Twitter. He enjoyed this medium because he connected with the others educator's experiences or reflections at a time that was convenient to him. Nick (t) added to this, stating "you needed to learn within your community" and that learning needed to be "in a relaxed atmosphere where teachers were not up tight and stressed because then these conversations were more difficult to have." Teachers frequently talked about the concept professional development teams or a community and how learning was enhanced when they worked with one other person. Teachers desired feedback about their classroom practice and pedagogy and advocated that one other person visit their classroom on a regular basis. Ben (t) described needing a critical friend to help him grow as a teacher. Ava (p) described how the process of role playing with a critical friend helped her walk through the actual process of learning.

Table 7

Social Interaction: Amount Teachers and / or Principals Referenced Them

Sub Nodes	Principal Focus Group	Teacher Focus group	Total
Community	30	15	45
School Culture	23	5	28
Sharing Learning	21	14	35
Collaboration	9	15	24
Common Language	10	5	15
Teacher Voice	30	13	43
Total	123	67	190

Both focus groups talked about the need to develop community or a supportive group which shared common learn interests. Noah (p) connected the terms "school" and "community" as being equivalent. To develop a school staff into a community of learners, participants from both the teacher and principal groups, recognized the importance of schools having professional development retreats. Nick (t) enjoyed physically getting away from their schools when there was not any work pressures. Retreats at the beginning of the year helped Ethan (t) reconnect with learning and school but participants from both groups expressed a concern that this made it hard to implement change for that school year. Two teachers talked about using the end of the school year for a pro-d retreat as they felt this would allow teachers to plan and prepare for the following year.

Principals felt another way of building community was developing Learning Teams and supporting them with learning team grants. These district grants paid for release time that

supported teachers' discussions and Brad (p) thought they were crucial in "driving professional development forward." Emma (t) acknowledged that one reasons for the success of Learning Teams was that they always involved socialization and that learning was a very social activity. Morgan (t) and Nick (t) appreciated these Learning teams because they were safe places where educators could discuss their learning and work and were able to meet on a regular basis.

Brad (p) commented that principals were "lucky if their school community" embraced personal learning. He admitted that it was hard to focus on teachers' personal learning when they were not interested or had other priorities. Noah (p) felt this issue was accentuated as a result of the frequent principal rotation between schools. Brad (p) felt principal's would walk into an established culture, which was resistant to any principal changes, and where they could have little effect. He felt there could be change in a building but this would take at minimum two years before there was any noticeable change to the school culture. Noah (p) added that this entrenched resistance, to talking about personal learning, was worse in a small school where the school culture could be affected by strong personalities and could negatively impact any professional development.

Professional Learning Communities (PLCs) were also discussed in the context of their effect on school communities. Dave (p) and Noah (p) talked about PLC time as the start of an ongoing learning dialogue within their school. It allowed teachers to talk about what they were struggling with in their schools. PLCs allowed teachers time and place to break down systemic barriers. Dave (p) stated how "we all teach different things and... we struggled ...to able to find commonality." He felt this gave teachers the framework to talk "about rubrics and essential learning outcomes and some of the nuts and bolts of teaching." Noah (p) talked about how PLCs helped develop a "whole culture and new community" within his school.

Teacher voice. This category combined three related nodes: Teacher voice, critical friends and role models. Table 7 indicates there were 30 references from the principals and 13 from teachers in this node. Ethan (t) noted that acquiring a teacher voice through working with a mentor was an important part of his professional development. He needed to have new practice modeled for him in order to make change. He needed exemplars to show him what he could achieve. Ben (t) felt there was a need for

> Concrete examples or good examples and different ways whether it is assessment or building a model or seeing research but we always hear the question that, that's great but how do I make that work. And then you start to see some examples of how that person is doing it and how that person made it work and you start to build off of that and every pro-d session that I have ever been to, seeing it real, seeing it actually being in place is always what gets the wheels going. And it goes back to what we said earlier if you stand and deliver here is what you should really be doing... but when you make it happen or see it happen and share best practices then you start to frame it in your own reference. Then I say I could do that piece and you start to build your own version of that.

Brad (p) explained that when teachers talked about their practice with other teachers there was a considerable buy in. Ava (p), Dave (p) and Brad (p) felt mentorship was a valuable tool. Mentorship was best when the mentors came from teachers working within the same school. Dave (p) described how mentorship created a social and learning relationships where a teacher watched and learned from another teacher in a non-threatening way. Ava (p) pointed out that these relationships developed "commonality within schools."

Emma (t) asked to spend time in another classroom to see how other teachers practiced AfL in the classroom. Ben (t) thought there were good things going on in his school and that

there were role models but was unsure how to find out about these. Nick (t) and Dave (p) talked about the significant influence of teachers who were already engaged or implementing assessment for learning practices. Noah (p) discussed what key staff were doing in his building, stating

> We had a couple of teachers who were doing some reading and were getting on some Learning Teams and were bringing this stuff forward. So some of the pro-d's we had weren't entirely admin driven. We had some teachers who were listened to on staff and were actually talking and other folks were actually listening. We had a teacher who was actually talking about learning outcomes, where we could sort their grade book by learning outcomes or teachers who were actually interested in learning about that.

Principals talked about how vulnerable these role models or mentors were in schools and Noah (p) commented that "teacher leaders, in some cases, because the momentum got stopped, some of those guys got crushed and they became disheartened and they are not speaking up any more because they got hacked and no one else is stepping forward." There was concern from Emma (t) that when teachers offered their knowledge that it might be rejected by other teachers. She talked about how some teachers were intimidated when other teachers had harassed them about stepping forward as an educational leader. Several principals commented on the negative role that the union had on teacher voice. One example came from Noah (p) that "some really powerful union people wanted to see themselves as a single entity off in their own little room." These teachers were also opposed to anyone who wanted to work as a group or share ideas.

Sharing learning. There was a similar number of teacher and principal coded references about sharing learning. There were two underlying themes, being transparent and being comfortable. Transparency was seen as developing "social awareness" about what teachers did in

their classroom and then how they shared those practices with colleagues. Nick(t) and Morgan (t) expressed that it was important for them to share their learning with colleagues. This was done primarily during NIDS. Morgan (t) felt that there were many teachers who did not feel safe when talking about learning within their school.

Many sharing references linked to group size. Dave (p) felt that successful Learning Teams needed "a core group of 3 to 6 people." Teachers did not quantify a number but Morgan (t) felt that professional development needed a good group size so that "more stuff could happen and it can continue on and more growth could happen." Ethan (t) acknowledged that when there is a "good group size there is more opportunity." Dave (p), a newer principal, felt "that with a group of people there were more people to bounce ideas off." He also stated "the added benefit of larger groups was that you were building stronger social and cultural relationships within your individual school."

School culture. Table 7 indicates that principals talked about this four times as many times as teachers. School culture refers to a common understanding about the behaviours and beliefs of pedagogy of learning. Noah (p) felt his school culture changed when staff "focused on the pyramid of interventions for behaviour and academics... and what will we do if they don't learn." His leadership team used "a few critical questions" to guide teacher professional development. He brought all of his teachers to a conference to ground them in pedagogy and practice which he felt created the "tipping point" for establishing a "positive school culture." This allowed his leadership team to shift from "trying to be the driver of the teacher learning train to being a passenger." This was in sharp contrast to most of the other principals who felt that the inherent school cultures were resistant to principal involvement and as Dave (p) commented "There is a cultural component too. There is an expectation at some schools that they

[teachers] are doing their own things." Ava (p) questioned "how come as a culture we do not have everyone knowing what they want to do; short term and long term?" Noah (p) added that some teachers resisted, or "dug their heals in" to any teacher learning in the school because they knew that the teachers would be in the building longer than the principal.

Other sub nodes. Due to the fact the following sub modes only accounted for 21% of the overall responses, they will be discussed briefly in this section.

Collaboration. Teachers referenced collaboration or teamwork 15 times compared to nine by principals. Collaboration was defined as teachers talking about and working together for a common goal. Emma's (t) covered a lot of what teachers talked about in reference to creating a collaborative model. She explained

> Working with others and having that group that you could say things with. For example at my school we had a time specifically dedicated to collaboration and we would sit down and then we would say things like, students are having trouble with understanding this. So we would sit down and say what are some strategies and then we would go back to our classes and we would talk about it. We would get back together and we would look at what worked and what did not work. I think having the other people to talk to about whatever you are trying to work on really does help and to try it and to come back and talk about it again some more and go back and tweak it. So it is like you are getting that constant feedback which is all about formative assessment.

The Teacher focus group wanted to have a prescribed collaborative time in the school day. Noah (p) commented that this time was removed from many schools because teachers declined to share with principals what they were talking about. Nick (t) felt that all teachers wanted to have this time included within the instructional day, but most focus group principals disagreed. The one

exception was from a school that developed collaborative time as part of their school pod system. Dave (p) and Brad (p) suggested that it was a struggle to get teachers to work on what would be "true collaboration"; looking at data, trying new things, reanalyzing, tweaking and trying again. Dave (p) tried to get teachers to use data and current research to guide their practice but he struggled in supporting teachers to do this. Collaboration was sometimes linked to Professional Learning Community (PLC) time. It too was only seen as a good model for professional developing teachers by Noah (p). Principals used the term PLC more readily than teachers. Noah (p) felt when time was built into school day that this model was extremely successful. It was a positive mechanism for developing a teacher community where learning was a key focus both for teachers and students.

Common language. Educators need to create common framework of reference or words in relation to their social interactions, i.e. they need to know the 6 strategies of Afl. For a common language to be created there needs to be some community building. Both focus groups discussed the need for schools to develop "connected communities", so they could then develop some school wide common language or dialogue. Principals thought common language should be around essential learning outcomes, formative assessment or the use of rubrics. Ava (p) was quite specific that school wide professional development focused on developing essential learning outcomes was critical in improving teacher practice. A similar conversation, occurred when Nick (t), talked about teachers marking provincial or school exams as the experience allowed the teachers to norm the essential learning outcomes of a course through assessment.

Summary

Principals and teachers acknowledge that there are system issues that either enhance or inhibit their ability to integrate professional development into their practice. The three major

nodes, teacher learning, leadership, and social interaction, highlighted areas that principals and teachers felt directly affected their professional development and in addition, enhanced or improved student learning.

Principals believe there needed to be system wide structure changes enabling them to influence teacher pedagogy. Principals and teachers acknowledged schools need a sustainable, ongoing professional development model involving a lot of social interaction. Both focus groups felt their practice moved forward because of their involvement in the formative assessment (AfL) Learning Teams. Principals decided establishing and supporting Learning Teams helped to shift the culture of their schools professional development. This shifted teachers from being an isolationist to being more open and sharing of their practice. All focus group participants saw strength and value in the social interaction in the learning process. It enabled teachers to have other teachers to look at their practice in a safe and encouraging way.

Principals affirmed that changing teacher practice could not take place without teachers supporting each other. Sometimes this meant allowing time for them to observe and give each other feedback about classroom practice or sharing what they do during instructional time with other staff.

The data suggest that there are some structures that advance professional development, such as collaboration, sharing classroom practice and Learning Teams. Focus groups acknowledge the role principals have in influencing teachers to critically reflect on their pedagogy and practice in an effort to improve student learning.

Chapter 5: Conclusions and Recommendations

Introduction

Chapter 1 introduced the basis for this study and outlined what research would be used to identify ways principals could support teacher professional development on student learning. Chapter 2 reviewed the salient research related to the main ideas. Chapter 3 outlined the steps taken in collecting the focus group data and how it was analysed. Chapter 4 reviewed the findings of the qualitative results and the coding using the NVivo software. This chapter offers conclusions and recommendations as a result of the literature review and research conducted. Finally, recommendations that principals can use to affect a shift in teacher pedagogy that focuses on student learning are presented.

Study Overview

The problem. Principals want to work with and support teachers in providing the best learning opportunities for students. They know there needs to be a sustainable, system wide change to professional development. Learning teams are sustainable and have been shown to be successful but they disappeared during teacher job action. One idea shared by both focus groups was to change the structure of the teacher work day to enable learning discussions during instructional time. They agreed the focus for principals and teachers needed to be to use the context of their own classroom. These ongoing social interactions have to become part of the school day which would enable teachers to look at their practice in a safe and encouraging way

The question. The study set out to define how principals could best support teacher professional development aimed at improved student learning. This study used a group of principals who have background in moving schools forward and a group of teachers who were active participants in voluntary professional development focused on Assessment for Learning.

The primary questions that this study asked were "What strategies are principals using to promote and participate in teacher learning and development? And further, which conditions do both teachers and principals feel best effect a pedagogical shift in practice that enhances the teachers' ability to learn in order to use their knowledge about teaching to benefit student learning?".

Methodology. Extended focus group methodology was used and there were two focus groups; one, made up of five secondary teachers; and, another made up of five principals or vice principals. Purposeful selection was used to identify teachers who had been a part of learning teams and principals who had implemented change in their schools. All participants, along with the researcher, were staff members of either an elementary or secondary school in same school district in British Columbia. Data was transcribed and coded along broad themes. All names referenced in this summary are pseudonyms.

Summary of findings. Two extended focus group discussions were held on two separate occasions. Three of the teachers had worked together on a Secondary School Assessment Team and the other two worked in the same school but were on separate learning teams. Participants were reflective of a variety of curriculum areas within the secondary school setting. The five principals represented a wide spectrum of leadership within their school district; two worked as elementary principals and three worked as either secondary principals or vice principals. Three major themes became evident through careful analysis of the conversations: professional development needs to focus on student learning; the principal needs to be actively involved as an instructional leader; and, the strength and value of social interaction in the learning process.

Teacher Learning

Teachers wanted to control their own learning and principals responded by trying to establish school structures that supported this. In an effort to make teacher learning a regular and ongoing conversation, learning teams needed to be created. Both principals and teachers discussed how important it was for learning conversations to focus on classroom instruction. A practical example occurred when learning teams were formed and teachers developed their assessment for learning strategies. Teachers participated because principals funded and promoted these learning teams. Once theses learning teams were created the first focus was on understanding where each teacher was at and creating a common language around formative assessment.

AfL. The focus groups saw strong benefits associated with the use of Assessment for Learning strategies. This shared belief gave them a synergy towards a common goal. This focus allowed teachers to review both their pedagogy and practice. Teachers were willing to challenge their understanding of classroom practices associated with Afl. They wanted to know what other teachers did in their classrooms and this happened when colleagues worked together and planned classroom activities. They discussed what worked and what did not. This learning became a school-wide discussion.

Classroom focus. Teachers had an interest in linking their professional learning to their classroom and wanted to share their learning with others. They did not have the ability to invite colleagues to come into their classroom and observe. Teachers did feel they were the experts and, as such, did not think that others wanted to see what they were doing. Principals recognized that many teachers were uncomfortable having someone watch their classroom practice. Teachers did not have release time to observe what was going on in another colleague's

classroom. One way they broke down their fears and connected with others was to share at school non-instructional days. Teachers commented about how powerful sharing was in the personal development. This development of local expertise needs to be encouraged. Postholm's (2012), Hunzicker's (2011) and Striker, Logan and Kuhel (2012)'s research suggested teachers need to present and reflect on the success stories from their classrooms.

Learning teams. Learning teams were seen by the focus groups to have a positive effect on teacher learning. It enabled teachers to have time to discuss, reflect and improve on their pedagogy and practice. Postholm (2012) felt reflection time was transformative because it allowed teachers to examine their pedagogical assumptions about the classroom and students. The time also reduced teacher stress about learning. Learning teams enabled principals to find or develop local experts. These teams were both collaborative by nature and involved educators constructing a shared or common knowledge. They were then able to share this within the wider school community. This allowed schools to have a number of staff that had the relevant knowledge to support other teachers to shift their pedagogy. They could both share their knowledge and what this looked like within their own classroom with the same students other teachers had. Schools started with one team and their success helped inspire other teachers to become involved in the discussion.

Instructional Leadership

Principals, in this study, were actively involved in supporting or promoting the professional development of teachers. This study extended Robinson et al.'s (2009) that instructional leadership had a significant impact on student learning. Principals' primary influences on teacher pedagogy or practice occurred when they created and supported formative assessment learning teams.

The principals' roles in formative assessment learning teams enabled them to enhance or change the classroom practice of teachers. Learning teams helped shift teachers' foci on improving student learning. Focus group principals did not know this change would happen but understood the importance AfL had on student learning. Ongoing conversations around assessment teams allowed principals to focus their support on the teacher's needs. Principals facilitated learning teams, originally, to create groups of teachers who had ongoing learning discussions. It was also the school principals who used their site-based budgeting to focus on the needs of their teachers. Timperley (2008) felt these learning discussions were critical in changing teacher pedagogy. Principals accepted that this would only move some of the teachers in their schools but wanted to start school wide learning conversations. It was the first time, since university training, where most teachers talked about both current educational theories and their practical classroom application. It also was the first time that these principals had a concerted and focused instructional leadership focus. This shifted those educators' pedagogies and practices. This active involvement in creating learning opportunities relates to what some research shows significantly impact student learning (Robinson 2007a, 2007b, Timperley, 2006).

Principals talked about their roles in connecting teachers in collaborative groups focused on formative assessment. They set up the schedules and facilitated learning communities that supported teacher professional development. Principals' school-based budgeting created problems when teacher job action occurred. Teachers withdrew from ongoing professional development when there was job action. In addition, professional development stopped, or was very slow, to restart when job action was over. Noah (p) stated

> We had a teacher who was actually talking about learning outcomes, where we could sort their grade book by learning outcomes or teachers who were actually interested in

> learning about that. Or reporting or assessing in different ways and those conversations stopped. Those teacher leaders, in some cases, because the momentum got stopped, some of those guys got crushed and they became disheartened and they are not speaking up any more.

Teachers outlined that professional development was not part of their regular duties and as such could start or stop whenever they wanted. There needs to be further research about how professional development should continue when there are many frequent job actions or strikes in the BC educational system.

There was agreement from both groups about some conditions that principals needed to create in order to successfully support shifts in teacher practice or pedagogy. Consistent and ongoing social types of learning needed to occur. The type of social context varied amongst schools. However, teachers and principals knew there needed to be regular, ongoing and consistent time spent on professional development. The primary push was for professional development to be during the instructional day but teachers discussed needing time outside the instructional day. Time had two meanings; one, that there was a focused period of learning, and, two; that there were regular meetings (Timperley et al., 2007). The consensus was this had to be between one and four hours and at minimum once a month. This time needed to be dedicated and focused on student learning. Both groups agreed that to sustain any change, teachers had to be involved in these discussions for a minimum of a year. This enabled them time to change their own practice, develop supports within the building, and create change amongst their peers. Without the last piece, teachers were worried that they would return to their isolationist style of teaching. These findings mirror Timperley et al.'s (2007) research that found that teachers need consistent collaboration about student learning.

Morgan (t) highlighted that the single most influential professional development occurred when the instructional leader enabled professional development to be part of her classroom. She stated that the "one time I was asked to use my class in a professional development and just see the kids in action and able to observe and then how it is put into play is actually valuable." She felt that working with another teacher, in the classroom, and observing best practice in action, allowed her to make a pedagogical shift. Ben (t) added that when you "see some examples of how that teacher is doing it and how they made it work and you start to build off of that and every pro-d session that I have ever been to, seeing it real, seeing it actually being in place is always what gets the wheels going." Instructional leaders need to promote classroom-based teaching and learning opportunities so the focus shifts to students learning.

Principals that had paid teacher collaboration time had more teachers engaged in professional development which meant they had a set time available for teacher professional development. Any professional development time that was regular, lasted more than 30 minutes, and was ongoing was seen by both focus groups as having a direct impact on student learning. Principals all agreed that piecemeal situations forced by the Ministry requirements for instructional minutes were constraints for teacher participation in professional development.

On the one hand, principals talked about how schools have built a culture resistant to change. Often resistance is seen when teachers have been in a school for years and they feel they can control the learning agenda. On the other hand, principals rotated between schools every two to four years. This was not considered long enough for an instructional leader to make lasting changes. Teachers excluded new principals from conversations as they were not seen as part of the staff or school culture. Noah (p) felt that teachers would not allow principals to have say or control over the learning dialogue. Instead they were viewed as "the jerk that came in and

changed things." Dave (p) felt that this could be changed by the district having a rotation cycle for teachers too; something along the lines of a three-, five- or seven-year rotation cycle. Principals were aware of their personal growth and development when they rotated to other schools. Noah (p) felt the current educational system has "created an incentive to not learn." He suggested the need to develop a learning commonality amongst all schools instead of relying on the variables of individual principals or teachers. Ava (p) felt the idea would be to build "common expectations across our schools." This research confirmed Resnick et al.'s (2010) research that instructional leaders need to "seed and propagate" the school focus on teaching and learning. This research clarifies that districts have to coordinate a district wide conversation focused on supporting this part of the principal's job.

Focus group principals knew the experts on best teaching practice were found from within their own schools. They talked about how instructional leaders provided teachers with learning opportunities. This was done by allocating funds, connecting the teachers to the activity and advocating for the activity. Brad's (p) example was when he created an opportunity for teachers to be involved in a writing program. He created the learning environment and teachers volunteered to participate in an ongoing series of workshops. It also focused on teachers from within the district leading the workshops. Teachers viewed this as something they controlled as they could decide to participate or not. However, it was all set up by their instructional leader. Postholm (2007) research found that most instructional leaders created the opportunities to learn through, funding release time, linking them to local expertise and giving them time to process learning. Principals were concerned how these opportunities looked and this was exemplified by Ava (p) who reported that as "principals and vice principals we struggle with not trying to take over the agenda but co-create the agenda with our teachers. That is what I find is the struggle."

Both teachers and principals felt that if teachers felt they were in the driver's seat of learning; there would be an impact on teacher pedagogy and student learning.

Principals felt that the resistance to changing professional practice was less in elementary schools than in secondary schools. There were several reasons suggested by the teachers and principals in this study as to why this phenomenon occurs. First, elementary teachers focus on teaching students versus secondary teachers who are, generally, more focused on teaching curriculum. Second, there is more sharing across classrooms and amongst teachers in the elementary settings. Third, elementary teachers felt less intimidated to speak in front of their colleagues as their school tended to be smaller than high schools. Finally, elementary teachers' school day finished earlier than high school teachers' days.

Social Interaction

Collaborative learning cultures or PLC research was extended by this research. Stoll and Temperley (2009) and Desmpter et al.'s (2011) research recognized that principals need to focus on, support, and work with learning teams. Resnick et al. (2010) and Postholm (2012) argued that the theory and practice of learning cultures are not separate ideas but need to be integrated on a regular and consistent basis. Focus groups recognized that when schools developed common language related to AfL, they also created a willingness to share through the social interactions involved. Focus groups recognized the need to connect theory to classroom practice.

There are a wide variety of formal and informal opportunities for teachers to learn and improve on their professional practice. Focus group principals wanted to shift teachers' mindsets from thinking about "I have to find something to do on Professional development days" to linking professional development opportunities to involve ongoing social networks. They wanted it to be seen as a regular part of the social fabric of the school community. Instructional leaders

wanted to collaborate with teachers about the design and delivery of their professional development in order to communicate its importance. This concept builds professional responsibility amongst all staff and becomes a regular and intrinsic part of both the principals' and teachers' work days which builds a collective sense of responsibility, sharing, and caring about student learning. Timperley et al. (2007) concurred that strong professional learning needs opportunities for a community of professionals to interact. It also echoed Timperley and Alton Lee (2008) who believed that this creates a shared vision and common purpose. Lieberman and Pointer Mace (2010) felt that the social situations exemplified in this research are foundational to effective teacher professional learning.

The teacher focus group described the importance that social interaction had on their professional learning. Principals indicated that they were striving to implement ongoing social learning networks or communities. These socially-connected learning communities involved both principals and teachers and, as such, were more successful (Resnick et al., 2010; Robinson 2007a, 2007b). Focus group teachers wanted principals to organize the sharing of classroom observations as an important component of changing teacher practice (Lieberman & Pointer Mace, 2010). Principals felt this was a key lever in changing the practice of other teachers within their schools (Parr & Timperley, 2010). It was clear that the focus on formative assessment provided a structure for principals to help focus teachers on their learning needs. It was a seen as a safe educational area.

Figures 1, 2 and 3 showed both groups had a desire to *change* the educational system. Almost two percent of all words were linked to educators' thoughts about making change. In addition they were thinking 1.5 percent of the time about ways to act upon this (Figure 3). The interesting part is the idea of *action* was predominately a principal's thought while teachers were

looking at working as group. Principals, in general, as a part of their job see the big picture issues and want to have action; while teachers are engaged in the day to day activities of teaching students.

Learning team grants were seen by principals as being an incredibly valuable professional development strategy because it revolved around social interaction. Teachers were willing to participate in this professional development activity which was focused on student learning. The idea of working with others, in a group, on activities is identified in both Figure 1 and Table 1. Principals felt that AFL was one of the most important focuses of these learning team grants. Teachers acknowledged that collaborating about AFL was the initial focus when they shifted their pedagogy. The sense of community developed in the learning teams was part of the reason for their success. Common language was developed when teachers talked about their classrooms and shared artefacts, lessons and results (see Lieberman & Pointer Mace, 2010). Common language was developed between teachers and principals. It also had the effect of reducing the professional isolation seen in many schools (Darling Hammond et al., 2009).

Principals felt that the learning teams were more natural in the elementary settings because those teachers focused on teaching students versus the secondary teachers who focused on teaching curriculum. However, they also acknowledged that bigger gains were made with the secondary school teachers as they shifted their pedagogical viewpoints. They became more social and interactive with other teachers about what learning looked like in their classrooms and which strategies worked best. This followed along with Earl's (2003) social constructivist viewpoint that teacher learning needs to be a cognitive process. Principals felt that this process was critical. Both teachers and principals recognized that these teams provided long term, consistent professional development dialogue.

Learning teams changed the dialogue from who "owned" the learning time to how we bolster student learning. Teachers felt that learning teams allowed them to develop common language and an area to talk about their contexts. Learning teams allowed both school districts and schools to enhance their role in developing school practice. The teams allowed teachers to follow Hattie's (2009) idea of being thoughtful about their teaching strategies and using directed teaching to get feedback on how it helped students learning. Teachers used this strategy when they worked with other teachers; being accountable to both themselves and their colleagues. This pressure to report to colleagues pushed teachers to follow through on their plans. It also encouraged an ongoing dialogue between teachers about student learning. In practice it produced real gains in reducing gaps between classroom practice and research. Emma (t) stated it best saying "learning they have proven is a very social activity. It is important that piece."

Principals acknowledged that they had to change the pedagogy of teachers and move beyond teachers merely talking about professional learning (see Table 2). Principals found that teachers learned by discussing their classrooms and observing what other teachers were doing. This social cognitive process allowed teachers to develop a clear and sustained focus on student learning. In addition, it developed both an individual and collective responsibility. Principals unanimously agreed that when teachers developed these responsibilities, the principals' roles changed from being in the passenger's seat to being in the driver's seat. They also felt this was their real job as a principal.

Recommendations

Here is a list of recommendations supported by this study:

- Principals and teachers need to be engaged in an ongoing social dialogue about learning.
- Principals need to be actively engaged in teacher's professional learning opportunities.

- Schools need to create a common language. This allows teachers to discover meaning on a personal level AND allows staff to develop trust amongst them.
- Districts need to support site based budgeting allowing principals to focus funding on the needs of teachers from their schools.
- Principals need support from district staff in creating common learning conversations across the district.
- Principals and teachers need to be watching and sharing what is happening in the classroom.
- Continue to support the development of resident experts within each school.
- Principals need to provide time for ongoing and focused teacher professional development.
- Principals need to have a strong understanding of theory and practice of effective leadership in order to support well planned professional development.

Principals are the instructional leaders in their schools and as such exercise significant influence on teacher learning and professional development. This study set out to investigate the best way for principals to support or influence a shift in teacher pedagogy focused on improving student learning. Both focus groups knew it was important to have a social constructivist approach on improving student learning. In particular there needed to be a clearly defined conversation, in this case, around assessment for learning. Principals need to establish safe, collegial and social learning environments. To affect teacher pedagogy, there needed to be sustained opportunities and school supports in place for them. Principals' involvement in the design and delivery of professional development was essential to changing teacher practice.

The instructional leaders should change structures to create cultures within schools that support ongoing teacher learning. Targeted resources are needed to implement these coupled with additional financial support from district and provincial leaders. One aspect of this school

district is site-based budgeting which allows principals to control how funds to support student learning are allocated. How funding is used is important. Teacher learning that is practice-oriented (Postholm 2014) should be one area where monies are allocated. Teachers are fully engaged in their own professional learning when they relate their classroom practices to student learning. Teacher and principal pedagogy changed when they focused on bettering student outcomes.

In careful review of the data transcription, it became clear that both teachers and principals believe in house professional development opportunities focusing on social connections and classroom based strategies. These opportunities best affected a pedagogical shift in teacher practice. It was clear to the participants that there needs to be collegial school communities focused on what teachers do in their classroom. The focus needs to be around a consistent theme, in particular, AFL, to build teacher professional knowledge of teachers thereby improving student learning in the classroom.

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