

Professional Development for Teachers in Rural and Remote Saskatchewan:

Making a Case for Asynchronous Online Professional Development

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Abstract

Small schools are scattered across the sparsely-populated prairie province of Saskatchewan. With 35% of our population being educated in rural areas, it is essential from a social justice perspective that adequate supports are in place for the professionals whose job it is to provide quality education in these areas. What are the challenges and benefits of offering asynchronous online professional development to teachers in rural and remote areas in the province of Saskatchewan? Is the current provincial environment right to move forward with a different approach to professional development? In the interest of improving professional development experiences of rural and remote teachers, a qualitative case study was conducted. The three Regional Superintendents of Curriculum and Instruction, who collectively serve all 29 school divisions within the province, were interviewed to seek insight into current practices and the potential for change. The paper concludes that the provincial environment is favourable for asynchronous online professional development.

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Finally, thanks to friends and family, some of whom have spent numerous hours either talking me through difficult sections or reviewing chapters. It is your support and unwavering belief that I *could* that ensured that I actually *did*.

Dedication

This thesis is dedicated to teachers in small schools in rural and remote areas of Saskatchewan who tirelessly continue to provide quality educational experiences to students throughout the province. Specifically, this is dedicated to my colleagues at Imperial School, Imperial, Saskatchewan. You were, and still are, my motivation.

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Chapter 1: Introduction

"A genuine purpose always starts with an impulse."
(Dewey, 1938, p. 67)

Problem Statement

This research seeks to identify the challenges and benefits of offering asynchronous online professional development to teachers in rural and remote areas in the province of Saskatchewan, in the interest of improving professional experiences. Employing a qualitative research methodology, the research focuses on interviews with the three Regional Superintendents of Curriculum and Instruction in the Province of Saskatchewan. Together, these three Regions collectively encompass the entire province.

This research will address the main research question, "What are the perceived challenges and potential benefits of offering distance asynchronous online professional development to teachers in rural and remote Saskatchewan?", by providing insight into the following areas: (a) the differences in circumstances of rural or remote teaching experiences compared to that in urban or larger school settings; (b) the role of professional development of teachers in Saskatchewan, with emphasis on the extent to which these offerings address the specific and unique needs of teachers in rural and remote locations; and (c) how asynchronous online professional development can be an effective means to addressing some of the unique professional development challenges of teachers in rural and remote areas of the province. The challenges include accessibility to *like-subject* and *like-grade* educators and high quality professional development opportunities, especially surrounding new curricula and provincial educational initiatives.

Researcher Interest

During my 18-year career in various rural schools, I have taught kindergarten, French, home economics, physics, biology, chemistry, senior mathematics, psychology, information processing, elementary science, and computer literacy, and I have performed responsibilities as the teacher-librarian. Additionally, the most recent four years have provided me with the opportunity to teach in both synchronous and asynchronous environments, within the Kindergarten to Grade Twelve (hereinafter referred to as K-12) system as well as with adult learners at the university graduate level. This vast and varied experience has given me a first-hand appreciation of the importance of the breadth and depth of professional development needs of rural teachers, as they face changing roles within their teaching duties (subject or grade changes). Additional needs are related to ongoing curricular changes and implementation of specific initiatives directed by the Saskatchewan Ministry of Education (e.g., the 2007 mandate of teaching Treaty Essential Learnings to all students from K-12) (Krawetz, 2008).

As a small school principal in a rural setting, I recognized the importance of providing *just-in-time* support and professional development to classroom teachers. Additionally, I attempted to manage and support teachers in their various school, community, and home roles, recognizing a need to provide flexibility around reporting and developmental expectations. With the benefit of a summer principal's short course, I developed a particular attitude toward my key role as principal. That role was for me to do whatever it took to enable the teachers to do the best job they possibly could in the classroom. Delivery of quality professional development in a timely and effective fashion was an element that I identified immediately as requiring more attention.

As a teacher using an asynchronous online platform to reach my students across a vast rural school division, I began to consider the possibilities and potential limitations of using this technology to connect teachers who have common problems but are working in relative isolation from each other. While their neighbours up the road may be teaching in a very *unlike* situation in a larger setting, their colleagues across the province are experiencing the same challenges, issues and successes. It is these rural and remote teachers that may benefit from being virtually connected—to share the load and celebrate the small triumphs—through a self-directed, workplace professional development opportunity.

Asynchronous online professional development offers possibilities that did not exist 25 years ago. In an ever-expanding era of technology, new platforms provide interactive methods of collaboratively working together, across time and distance, to improve daily practice. Asynchronous online professional development could provide teachers like me with the possibility to provide input to others, and to receive assistance from other professionals about new subject areas, new potential for curriculum, and different methods to approach the same problem.

My ontological belief is that our social position affects our reality and our perspective of what we may know and thus, we gain our knowledge through our social and historical position. Our knowledge base is formed not only on whom we interact with, but also the power relationships that exist within that interaction (Mertens, 2005, Grix, 2002). I am compelled as a rural educator who returned to campus for a graduate degree, to take advantage of this opportunity to ensure that what I learned about teacher needs in my earlier years is not lost. My past experiences in small schools continue to motivate my passion as a researcher.

Provincial Context

Saskatchewan is in the heart of Western Canada. Once considered an agricultural province, the economy is much more diverse now, relying on commodities such as natural gas, oil and mining (primarily potash in the southern and central areas, and uranium and hard rock mines in the Northern part of the province). Mining, oil and gas extraction now account for approximately 25% of the economic activity in the province (Government of Saskatchewan, 2009a).

The majority of the province's 1.06 million citizens (Government of Saskatchewan, 2011) are concentrated in and around two major urban areas: Saskatoon (population 218,000) and Regina (population 199,000) (Elias, 2009). The remaining citizens are scattered across the nearly 662 thousand square kilometers (Government of Saskatchewan, 2011). The Northern half of the province, despite its size, is home to less than 40,000 people (Western Economic Development Canada, 2009). Along with the more scattered population, travel challenges and distances between communities in the Northern areas increase the potential feeling of isolation.

Teacher training in Saskatchewan occurs through the University of Saskatchewan and the University of Regina and their affiliated programs (Saskatchewan Urban Native Teacher Education Program (SUNTEP), Northern Teacher Education Program (NORTEP), etc.) (STF, 2011). Teacher certification occurs through Teacher Services within the Government of Saskatchewan Ministry of Education. Individuals who hold a Professional A certificate—issued to graduates of the province's Colleges of Education—may seek and hold jobs throughout the K-12 system in Saskatchewan, with no further specialty training. Individual school divisions may choose to add requirements within their own jurisdiction, but there are no additional requirements at a provincial level. Professional B, Vocational, Technical (all limited to

provincially-endorsed areas of expertise) and Provisional Certificates (for those teachers trained out of the province) are also issued. In addition to certification, teachers are further classified by their own level of education and years of teaching experience. Class IV teachers have a Bachelor of Education; Class V teachers generally have a Bachelor of Education and either a second Bachelor degree in a what is considered to be a teachable subject area (such as history or chemistry) or have a Master of Education; Class VI teachers must have at least one advanced degree, but may have completed two advanced degrees. This classification affects teachers' salaries, but does not influence what age of students or areas of study they may teach.

Saskatchewan teachers represent a vast and dynamic group of individuals who are employed across a wide variety of environments: (a) larger urban settings, such as Saskatoon and Regina, (b) small rural settings, such as Nokomis and Archerwill, and (c) remote Northern schools, such as Stony Rapids and Brabant Lake. The Saskatchewan Teachers' Federation (STF), the professional organization for employed teachers, officially represents over 12,000 publicly-funded members from 26 local teacher associations within the province (STF, 2010). Additionally, other qualified teachers employed within the province fulfilling specific guidelines, and qualified teachers with out-of-province certification, may become associate members. This kind of diversity of location and school size provides a sense of some of the challenges faced when it comes to providing professional development to all teachers across the province.

In 2009, there were 721 schools in 29 school divisions in Saskatchewan (Ministry of Education, 2010). There was a decrease of 141 schools over the preceding 17 years. The physical distribution of the 721 schools is: 193 in Saskatoon or Regina, 23 are Northern, and the remaining 505 schools are located in what may be considered "rural" school divisions (divisions that are outside the two main urban centres). To further distinguish, there are 221 schools with

less than 150 students (or equivalent, when the school offers less grades than a full K-12 school). Of these 221 schools, 12 are French language schools, 10 are alternative schools located in urban centres, and the remaining 199 are rural schools, 60 of which are Huttarian Schools and 10 that could be considered remote, because of lack of all-weather access roads. Further, there are 174 schools that have populations of less than 100. This data is presented to draw attention to the numbers of teachers affected, as staff size is primarily based on student numbers. In proportional terms, 30% of schools have the equivalent of less than 150 students, while nearly 25% have less than 100 students (Government of Saskatchewan, 2009). It is important to note that these statistics deal with only provincially-funded schools.

Research Context

Every research idea starts somewhere. There is a spark, an interest, or another motivator that drives a researcher to want to dig deeper, to find out more. In my career there have been many long road trips to larger centres for one-day professional development workshops. Upon return to the classroom, not only would I discover that the lessons I had so carefully prepared the day before were not implemented—because the students were stumped on a senior math or science concept that the substitute teacher was unable to assist with, requiring a redo of the lesson—but also the materials and/or technology that I was just introduced to in the workshop were not available in my school. Additionally, the cost to purchase would be far too expensive for the current allocated budget. Two key learnings would inevitably present themselves in the following weeks while I tried to deepen my understanding and begin implementation of the concept in my own classroom: (a) the Internet had most of the didactic information that was presented at the workshop, already available online for little or no cost; and (b) I longed to speak

to someone in a similar situation, with multiple grades, old equipment, and limited budget, to collaborate with on how to modify this idea for the students. I wanted to ensure my students had all the same advantages that city students had, without the facilities or resources. As I became a distance educator, I began to wonder why, if we could engage, connect and educate teenagers from a distance, were we not using the same capacity to provide teachers with the information and connections for their professional development needs? The research seed was planted.

I know what I know from being a teacher in rural areas for nearly twenty years—from attending conferences in large centres; from driving miles and miles and miles; from teaching and from learning at a distance for years from many different academies. But questions lingered. Who knew things I did not about professional development in rural Saskatchewan? Who could provide me with an overall view of what was happening, not just in school divisions I had direct experience with, but across the province?

Who would know? Superintendents of Curriculum and Instruction would know. At a divisional level, Superintendents of Curriculum and Instruction have, as one of their responsibilities, to oversee curriculum and instruction initiatives within either their mandated schools or for the entire School Division. It is their job to know all about professional development. However, with 29 school divisions in the province and often more than one Superintendent of Curriculum and Instruction in each division, pure numbers would mean that survey tools rather than interviews would need to be employed. If I failed to get enough surveys returned, I would not have a sufficient sample size to work with; and I worried that survey tools would not provide a sufficient level of depth, especially in term of intuitive perceptions. There had to be a better way.

I knew I needed to narrow the scope of professional development to something more focused as well. The Ministry of Education in Saskatchewan is currently in a major curriculum renewal phase. This renewal, across ages and disciplines, reflects the Ministry's aim to "incorporate recent educational research, and to make clear the desired results for learning" (Ministry of Education, 2010, p. 1). Because of this initiative, the scope of my research became clearer; and the best people to speak to, more obvious. Thus, the scope of professional development surrounding curricula and Ministry initiatives, and the sampling group of the three Regional Superintendents of Curriculum and Instruction, was determined. These people are in contact with every school division in the province and would have first-hand knowledge of what was happening within their own Region.

Potential Research Significance

In spite of being a province with 35% of its population living in rural areas, the current Saskatchewan teacher professional development scene is primarily modeled after a one-size-fits-all approach that is perpetuated by Saskatchewan Colleges of Education through their approach to teacher candidates. Teacher candidates are grouped and prepared for their future by either the grades they want to teach or the subject areas they choose to focus on. In an era where online distance learning is seen as one solution to remote learners for both high school, post-secondary and graduate work, this educational format has not been widely adopted for teacher professional development in spite of the vast distances across amalgamated school divisions. As a 20-year professional, beyond formal courses offered through universities, I never encountered an online distance professional development opportunity offered in any of my fields of study within the province.

This research may add to existing literature in three distinct areas. Researching distance asynchronous online professional development is timely because technology has improved and is more widely accessible now. In 2003, 74% of Canadians were using the Internet compared to just under 40% five years earlier (Ekos, 2004). Because the province of Saskatchewan is currently undergoing a major curricula renewal phase, research about professional development of teachers is a timely and important topic. This research may assist Ministry and School Division personnel, and perhaps teachers themselves, to think differently about how to meet teacher needs, better, in times of change. Lastly, this research focuses on rural and remote teaching experiences, highlighting identified needs in these areas. This type of information may prove useful to both rural and remote teachers (receivers) and those who attempt to meet the professional development needs of this group of teachers (suppliers).

Research Questions

The primary research question in this study is: "What are the perceived challenges and potential benefits of offering distance asynchronous online professional development to teachers in rural and remote Saskatchewan?"

In support of this primary question, the following sub-questions will be pursued:

- What are the key differences between the professional experience of teachers in rural and remote, versus urban, Saskatchewan?
- How is professional development currently used to support teacher implementation of curricula and new ministry initiatives in Saskatchewan and how is this different than in the past?
- What are the decision-making processes that define how professional development is offered to rural and remote teachers in the province?

- What are the perceptions about the current environment towards offering asynchronous distance professional development to teachers?
- What may an asynchronous environment provide that a face-to-face professional development experience would be unable to offer?

Definitions of Terms

For the purposes of this research, the following definitions will be used. "Asynchronous distance online" will indicate that learners are able to access documents and send or add messages at any time from any location that is Internet-enabled. Asynchronous online learning has a main component of flexibility and is "commonly facilitated by media such as email and discussion boards, supports work relations among learners and with teachers, even when participants cannot be online at the same time" (Hrastinski, 2008, pp. 51-52). "Professional development" will include activities that teachers engage in to improve professional skills and/or knowledge, excluding for-credit course work offered by formal universities and colleges. "Small schools" will be used to reference schools with approximately 100 students or less. The term "rural" will indicate areas with a population of less than 1000 people. "Remote" will be used to indicate a Northern community that does not have paved access. Further explanation surrounding these definitions may be found in the literature review chapter.

Chapter 2: Literature Review

"The teacher has many publics to serve—the students, professional colleagues, central office staff, department of education officials, and parents, to name but a few. The teacher has many roles to play— instructor, counsellor, confidant, friend, colleague and administrator." (Giles & Proudfoot, 1990, p. i)

Rather than being comprehensive, this literature review will follow the recommendation of Silverman (2010) and cite literature only to connect my research topic to the broader research community. The review will identify where there is consensus and where there is diversity of opinion on an international, national and provincial level. Lastly, the review will be used to identify gaps that exist in the literature and state how the research may address some of those gaps.

The research question, addressing perceived challenges and potential benefits of offering distance asynchronous online professional development to teachers in rural and remote Saskatchewan, needs to provide insight into three areas: (a) rural and remote teaching circumstances; (b) teacher professional development; and (c) asynchronous online professional development as defined in the previous section. The research interest is in the rural and remote perspective and will therefore not examine issues of specific interest to urban teachers. The professional development research is designed to focus on how the differences that do exist define the unique and specific needs of professional development for rural and remote teachers. Again, the specific professional development needs of urban teachers will not be addressed. Lastly, asynchronous online professional development will be considered through the lens of meeting the specific professional development needs of rural and remote teachers. Challenges and benefits will be examined generally as they pertain to rural and remote educational settings.

It is important to recognize that while this research focuses on rural and remote teaching experiences, at times it is necessary to include an urban perspective for illustrative purposes and to represent what is considered, by some, to be the *norm*. This comparison is in no way meant to represent an "urban versus rural" paradigm. There is no *us* versus *them*. The sole purpose of showing there is a difference is to assist in understanding that not only does a difference exist, but that the difference informs the professional development needs of the teachers in these different circumstances.

Rural and Remote

The research question focuses on a specific population of teachers, those teaching in rural and remote Saskatchewan. To determine what population of teachers are considered to be rural and remote requires an examination of the literature for definitions of rural and remote. This section addresses literature that focuses on the differences in rural and urban areas to the extent that they affect a teacher's professional experience. Further, the concept of rural schools and the rural teacher experience will be explored. The point is not to develop a rural versus urban argument, but rather to highlight how the rural and remote teaching experience is unique and therefore professional development needs are different and should be investigated and explored.

Rural means more than country, and remote means more than far away. Hardre (2009) states that "how we define and classify rural places has everything to do with how we understand them, the people who live and work in them, and the education that takes place there" (p. 6).

There is no worldwide consensus about the definitions of rural or remote. Sher (1981) eloquently explains that "ruralness, like beauty, lies in the eyes of the beholder" (p. 22).

Defining rural and remote areas is a complex yet important matter. The population of a centre, the distance between centres and accessibility all factor into one's conceptual view of rural and remote. Often the two are used together, synonymously, as a catch phrase to represent everything and everybody that is not urban. The Australian Government uses a scoring system to determine the remoteness of a community. The term "remote" is applied when there is "very restricted accessibility of goods, services and opportunities for social interaction" (IRB, 2001). The term "very remote" is used to indicate extremely secluded locations. The Saskatchewan Ministry of Education (2011) uses the terms "urban", "rural" and "North" to distinguish the three areas for educational service. However, Statistics Canada separates the population into only urban or rural, with urban centres having a population greater than 1,000 occupants. Generally, by comparing Saskatchewan town populations (Statistics Canada, 2006) with their school enrolment numbers (Ministry of Education, 2010) a town with a population of 1,000 would not have a school that falls under the classification of "small school" as explained in the following paragraph. For the purposes of this research, town size—which generally has a direct effect on school size—is seen as a potential factor that affects teachers who work within that setting.

Graduating classes of five or ten suggest a school must be small. However, the Small Schools Network—previously a sub-group of the Saskatchewan School Trustees Association (SSTA)—believed that there was a lack of definition around the term "small school" which was detrimental to both *research* and *general communication* about small schools. Funding support used to apply to schools that have grade enrolments of less than 20 students (Small Schools Network, 1994, p. 2). Using this basic formula as a definition, a small K-12 school would have less than 260 students. However, there are many schools in the province that have a significantly smaller student population. In the *2009 Saskatchewan Education Indicators Report*, the Ministry

uses the word "small" to describe "schools with less than 150 students" (Ministry of Education, 2009, p. 34). Further, it uses the term "very small" for a school that serves "50 or less students" (p. 34).

Canadian literature and government websites are vague on what constitutes truly rural or remote. The lack of definition means that the differences may potentially be seen, or at least treated by those in authority, as having no significant impact on the people who live there and therefore not worthy of study, consideration or extra support. Potentially, this vagueness serves to perpetuate the illusion of sameness.

Despite the lack of an actual definition, there have been countless papers written about the differences between rural and remote areas. These papers generally focus on issues from either a community perspective (Herzog & Pittman, 1995; Sher, 1981; Wotherspoon, 1998) or from an educational perspective (Canadian Council on Learning, 2006; MacKinnon, 1998; Malhoit, 2005; Reddyk, 1996; Roberts, 2006; Roberts & Lean, 2006; Scharf, 1974; Sher, 1981; Storey, 1993; Wallin, 2009).

The effects of school location on student achievement have been well documented, although in the case of rural (not remote) Saskatchewan seems to be unique according to recent reports (Atlantic Institute on Market Studies [AIMS], 2011; Ministry of Education, 2009) in that our rural students perform equivalently to our urban students. However it is important to note that self-declared aboriginal students—regardless of rural, urban or Northern designation—do not match these statistics. This population of learners continues to underperform their urban and rural counterparts (Ministry of Education, 2009).

Malhoit (2005) cites 12 distinct and unique characteristics of rural communities, including: poverty, distance, space and sparseness, declining population, technology issues, and

smaller schools (pp. 10-12). Many of these characteristics were earlier identified in Herzog and Pittman's (1995) look at "Home, Family and Community: Ingredients in the Rural Education Equation". Wotherspoon (1998) reflects on two Canadian studies, identifying unemployment patterns, crime rates, educational attainment, and participation in community activities as important differences between rural and urban regions (p. 132). Consequently, rural areas require teachers "who will meet a stunning array of needs, manage the challenges of governmental demands, teach to a range of subject areas and life skills, juggle a host of extracurricular and community roles and fuel the life aspirations of diverse children" (Hardre, 2009, p.1). However, local rural community expectations of teacher involvement—in school and in the community, beyond the classroom—can be a limiting factor for involvement in organized professional development opportunities. Small rural schools often demand much from their teachers in the way of extra-curricular responsibilities (Preston, 2006, p. 88), thus limiting teachers' abilities to commit to attend after-school or evening workshops on a regularly scheduled basis.

In summary, there is a lack of distinction between urban and rural, as well as rural and remote, in the literature. The Ministry of Education in Saskatchewan classifies schools in terms of urban, rural and Northern (rather than remote) (Ministry of Education, 2009). Further, in Saskatchewan, a cut-off of 150 students is considered to be a small school (Ministry of Education, 2009), but there is a lack of definition in the broader literature. For the purposes of this research, a small school will be defined as one with a student population of about one hundred or less. The research being conducted contributes to the literature surrounding the differences in experiences of teachers in urban, rural and remote Saskatchewan.

Professional Development

This section addresses current literature dealing with professional development of teachers. The purpose is to identify what needs, if any, are specific to rural teachers. There is no attempt to identify urban needs. Findings, areas of consensus, diversity of opinion, and the geographical span of the literature will be identified. This review does not look at professional development as a global issue, but rather focuses on the literature available on professional development to further refine and objectify the purpose of the research. General information about professional development will be presented when it can provide a deeper understanding of the research question.

The use of the database search tool ERIC (Education Resources Information Centre), sponsored by the Institute of Education Sciences through the US Department of Education, covering research documents, journal articles, technical reports, program descriptions and evaluations, and curricular material—and considered by the University of Saskatchewan library staff to be a "best bet" search tool for educational references—proved limited. However, perhaps the results of only nine citations for the keyword search "rural professional development" as opposed to 25,925 citations when "professional development" is used, provides some insight into the very research being conducted here. For the most part, discussions surrounding teacher professional development tend to ignore the context of individual teachers and treat the group homogeneously.

The investment of money and time to improve teacher skills and knowledge is one of the most important investments educational leaders can make (Holland, 2005). While professional development is defined differently by different people, and its importance cannot be overstated (Blandford, 2000; Craft, 1996; Mills, 1995), it should be recognized that effectiveness

characteristics are multiple and complex (Guskey, 2003). Further, in 1999, the Saskatchewan Education department acknowledged that, "professional development is a key component of successful implementation and renewal of curriculum" (p. 11). Close alignment of professional development with classroom conditions is key to success (Hardre, 2009; Holland, 2005).

Keeping in mind that it was established in a preceding section that classroom conditions are significantly different in small rural schools than other areas, this understanding speaks to the need for different professional development experiences for those teachers.

The five major areas of difference that impact professional development needs of rural and remote teachers that are addressed in the literature are: inexperience (Herzog & Pittman, 1995), access (Cuervo, 2005; Mulcahy, 2006; Preston, 2006), isolation (Cuervo, 2005; Hardre, 2009; Huysman, 2008; Preston, 2006), less education (Herzog & Pittman, 1995; MacKinnon, 1998), and work and teaching load (Hardre, 2009; Malhoit, 2005; Mulcahy, 1996, 2006; Preston, 2006). Each of these areas, in its own way, speaks to the need for a different, specialized approach to professional development and support of teachers in rural and remote areas.

Inexperienced teachers' needs are different than those of experienced teachers.

Inexperience, coupled with teaching outside of one's comfort zone (either age-trained or subject matter), adds to the stress level of a teacher. Saskatchewan is currently in an ongoing curriculum renewal phase that began in 2007 (Ministry of Education, 2010). Mokolky (1995) prepared a report for the Saskatchewan School Trustees Association that reviewed and analyzed the implementation process during the last major curriculum initiative. He noted that the degree of stress that teachers were feeling during this implementation was "particularly relevant" (p. 2).

Major change, coupled with inexperience, and therefore the need for a competency-building time period (Mills, 1995), adds to the challenges for newer teachers.

Isolation, imposed by classroom responsibilities, can exist for any teacher (Mokelky, 1995). Isolation, imposed by distance and lack of like-subject or like-age colleagues, inevitably exists for rural and remote teachers (Cuervo, 2005; Hardre, 2009; Preston, 2006). Cuervo (2005) points out the challenges of the distance between rural and remote schools in Argentina as primarily resource-based. Hardre (2009) points out that teachers in rural America often "lack peers in teaching" (p. 6) and "feel alone" (p. 3). This feeling of loneliness can be heightened after an immersion experience, thus suggesting that programs need to be "proactive in sustaining connections to combat the contrast of isolation" (p. 3). Preston's 2006 Saskatchewan research of eight teachers reflects a stark contrast of subject teams and departmental assistance when working in an urban setting, compared to the long distances that needed to be travelled to attend professional development sessions when working in a rural area.

Teachers in rural areas are less likely to have two degrees and less likely to have graduate degrees (Herzog & Pittman, 1995). A natural conclusion is that access to quality distance education may be a contributing factor. Until recently, much of the graduate-level distance course offerings of the University of Saskatchewan were either technology-based course offerings or more general adult education courses, as opposed to those curricular or methodology-based courses. There are more challenges to *attending* university classes for upgrade purposes when you physically live and work a great distance from a university than when you work in the same urban centre.

Preston (1996) found that not only do rural teachers have a more varied teaching load than their urban counterparts, but they also have more expectations for involvement in both the school and community. Hardre (2009) references juggling hosts of extracurricular and community expectations. Mulcahy (1996), after listening to rural teachers discuss the "challenging nature" of their jobs, felt they had "the most difficult of teaching situations yet they received the least help and consideration" (p. 3). Yet these unique needs are seldom, if ever, considered in relationship to the professional development needs that result from these circumstances (Malhoit, 2005).

Inexperience, less education and teaching load speak to the need to have a variety of professional development opportunities available to teachers that do not consider themselves well-versed or *experts* in the field. A new teacher trained for elementary school, who finds herself also teaching Chemistry 20, requires different professional development than a two-degree with a Chemistry major, long-term Chemistry teacher. These two examples are very possible scenarios for a rural or remote teacher compared to her urban counterpart.

Access and isolation may go hand in hand unless creative methods are applied. Hardre (2009) calls it "reaching out and reaching in with professional development opportunities" (p. 1). Understanding and supporting communities of practice, having professional development "generalizable enough to transfer across areas" (p. 4), and making opportunities "locally meaningful" (p. 4) are all suggested methods to improve the professional lives of rural teachers. Delivering professional development to a scattered base of educators is problematic. Cuervo (2005) summarizes several research studies conducted in Australia—a country that has sparsely scattered rural communities over a large land area—by stating that one of the difficulties faced

by the Australian rural education system is teachers' professional development due to their remote locations (p. 116). Mulcahy (2006) labels this situation a social justice issue. He frames the issue by focusing on the students, reiterating that since the teachers are not receiving the same professional development opportunities, "we are not being fair and just to the children who attend our smaller schools. Surely they deserve better" (p. 25). Mulcahy's statement could be easily extended to the teachers in those circumstances, as well.

Extended communities of practice could help address the isolation and speak to better quality professional development than the traditional one or two-day sessions. These may serve the purpose of "rejuvenation" or some "time-out space" (Mills, 1995, p. 27), but do not address the current research understanding that "professional development is likely to be more effective if it is sustained over time and involves a significant number of hours" (Holland, 2005, p. 3) and involves follow-up (Richardson, 2003). Communities of practice can address both those points. Additionally, carefully planned communities of practice could link like-subject or like-age colleagues. This should assist in how to implement provincial curricula with the limited resources in a small school and make it practical at a local level (Hardre, 2009).

There are many reasons to re-examine professional development delivery to teachers in rural and remote Saskatchewan. "Catered events like traditional in-service sessions, workshops, conferences or conventions might be our time-honored traditions" (Mills, 1995, p.25), however, this is not a reason to continue without looking at who they serve well, who they do not serve well, and how they could serve better. Richardson (2003) calls for a "mixed-model" involving both input from the teachers and the inclusion of an "expert facilitator". While her research is all based on in-person professional development, when examining how professional development

could serve rural and remote teachers better in today's digital age, asynchronous online professional development needs to be examined as another possible answer.

Providing adequate, quality professional development to teachers in rural areas can help to address specific needs of rural teachers, potentially improving the quality of education that their students receive. Access to professional development is therefore a social justice issue for both the students and the teachers. Replication through other means, the model of communities of practice that form naturally in larger schools, can help to overcome isolation issues in rural and remote areas; while addressing the shortcomings of single-shot professional development events that are the current practice.

Asynchronous Online Learning and Professional Development

This section addresses current literature specific to asynchronous online professional development for teachers. It also draws from the literature of both educating teacher candidates and online graduate level courses to provide context. To provide some context of the general history of distance learning and the Saskatchewan relationship to distance learning in general, documents that provide a historical perspective were also reviewed.

Policy, people and technology are all elements of distance education (Shih, Hung, Ma & Jin, 2007). To support the research questions, literature surrounding the elements of people and technology will be explored; policy will not be discussed, as it is beyond the realm of this paper. The scope of these two elements will be investigated within the field of education (as opposed to other professions) and will focus on asynchronous online professional development.

Asynchronous online learning supports relationships among learners, even though participants may choose different times to work. This is a key factor in flexibility (Hrastinksi, 2008).

Again, the database search tool ERIC was utilized. The keyword search "distance professional development" resulted in only six citations, whereas the keyword search "distance education" resulted in 12,892 citations. In this case, a cursory search on the broadest themed topics relating to the study of distance professional development indicate a focus on studies concerning distance education offerings that would be accessible to rural students, rather than those which deal with professional development for teachers. Two of the six citations dealt with assisting teachers in readiness to be distance education instructors, rather than dealing with teachers as distance learners.

A secondary search on ProQuest Education Journals (1988–present) was useful in finding two scholarly articles detailing research that was conducted to investigate support *within* distance professional development. The two articles were written by the same group of researchers about an initial and subsequent trial that examined the need for support and interaction in distance professional development (Carey, Kleiman, Russell, Douglas-Venable, Louie, 2008; Russell, et al., 2009).

Further to the original library searches, utilizing search engines within Internet browsers proved to be fruitful. Online communities and websites designed to help define and address the needs of rural educators are beginning to emerge. The *Journal of Research in Rural Education* is a peer-reviewed, open access e-journal with a Penn State University editorial board (Penn State College of Education, 2012). The recognition of the differences of rural and urban has been brought to light in various ways. However, after reviewing published articles, there remains a lack of information specific to the professional development of practicing rural

teachers, as opposed to rural students (Anderson & Chang, 2011; Hannum, Irvin, Banks & Farmer, 2009; Hardré & Hennessey, 2010), teacher-candidate education (White & Reid, 2008; Wenger & Dinsmore, 2005), and retention issues for rural school divisions (Barley & Beesley, 2007).

A broad historical overview indicates that distance education is not a new phenomenon. In 1926, the Saskatchewan Government began an "outpost" school, which later became the Saskatchewan Correspondence School. They added radio broadcasts in 1931 to support the mailed out paper lessons (Horsman, 2006). The U.S. Army used "video tapes" to train employees during WWII (Shih, Hung, Ma & Jin, 2007, p.2), an early form of *one-way* asynchronous distance training or professional development. The use of computers added a second phase, and provided some capacity to interact with instructors in a limited way (Shih, Hung, Ma & Jin, 2007). The advent of multimedia and the Internet, as well as new software developments, allowed for a whole new level of interaction (Shih, Hung, Ma & Jin, 2007). This created new potential uses and users and, for some, a sense of community (Greer, 2009; Gudmundsson & Matthiasdottir, 2004). Faster data transfer speed, web authoring tools, and the introduction of comprehensive Internet search engines provided examples of why this technology is becoming increasingly important (Rovai, Ponton & Baker, 2008, p. 1). "The use of computer and information technologies in education have a long history" (Shih, Hung, Ma & Jin, 2007, p.2). The reference to Army training that Shih et al (2007) write about reflect the blurred lines between education, training and professional development. This is further highlighted in their summary, when they state that, "distance education has a great impact not only to high-level education, but also to industrial training" (p. 19).

The literature that exists surrounding asynchronous online education generally examines: university for-credit courses (Anderson, 1995; Duncan, 2005; Fan, 2011; Hill, 2010; Hrastinski, 2008; Rovai, Ponton & Baker, 2008); distance education for teacher candidates (Delfino & Persico, 2007; Simpson, 2006); professional development for distance educators (George, Wood & Wache, 2004; Roberts & Associates, 1998); or is from a 'theoretical perspective' (Akkerman, Lam & Admiraal, 2004, p. 252). This leaves space for practical research and findings that are more specific to opportunities for all teacher professional development in an asynchronous online environment, rather than those with specific expertise and interest in the online arena.

A Canadian case study conducted by Duncan (2005) explored student and instructor perceptions of online learning in relation to a Master's level online education course. This example involving the perceptions of practicing professionals engaged in asynchronous online education cited an appreciation for reflection time, the opportunity for interactive collegial dialogue, and learning that was relevant to their real-life professional experiences—all as advantages for this type of course experience (pp. 891-2). Hrastinski (2008) believes that it is the asynchronicity that allows for more thoughtful communication, compared to a synchronous learning situation, because students may spend more time refining their thoughts before posting.

It is professional development much like that offered by an organization called 'teachscape' in the United States (teachscape, 2012), rather than for-credit courses, that is considered in this research. However, the relevance of Duncan's research is that all but one of the participants in that study were practicing teachers in rural and remote areas of Canada. If parallels exist between online for-credit courses and non-credit asynchronous professional development, then advantages identified within Duncan's study may apply to asynchronous online professional development experiences for teachers. Simon (2003) believes teachscape has

material that covers content and classroom skills; and, because of the nature of delivery, it also serves to improve teachers' computer skills.

The Alberta Teachers' Association (2006) and the Fort Vermillion School Division launched a pilot project to examine the use of select technologies to support teacher professional development. This type of professional development was designed, in part, to bridge distances, but was also presented as a solution to the "traditional model of episodic and decontextualized professional development" (p. 3). In this case, the four types of online distance professional development studied included: (a) study groups, (b) discussion boards, (c) collaborative websites, and (d) synchronous videoconferencing. Privacy (of discussion boards) and Internet access were two concerns raised by teachers that may impact participation.

Communities of practice—groups of individuals brought together by a concern or passion for what they do and an interest in learning how to do it better—may provide leadership in the development of online professional development (Vrasidas & Glass, 2004; Wenger, 2006). Wenger (1998) suggests three key characteristics of communities of practice that help to ensure coherence: (a) "mutual engagement of participants" (p. 73), (b) "negotiation of a joint enterprise" (p. 77), and (c) "development of a shared repertoire" (p. 82). Communities of practice may be part of a more formal professional development experience, or may be started by interested individuals. STAR-Online (Supporting Teachers with Anywhere/Anytime Resources), a Western Illinois University-supported teacher professional development team that is part of the College of Education, provides teacher access to mentors, colleagues, and resources (Vrasidas & Glass, 2004; Western Illinois University, 2012). While not focused on just a community of practice, which may or may not have a formal professional development element, it is recognized that optimal functioning of individuals may happen through social participation (Fan, 2011).

Additionally, there is some evidence that an online community of practice which begins with a face-to-face event may assist in relationship building (Riverin & Stacey, 2008).

Online conferences may be able to meet the needs of a diverse national or global audience, or they may be tailored to suit the needs of a smaller more closely linked group of professionals (Anderson & Christiansen, 2004). The reasons that online conferences succeed or fail are varied:

The form book for online conferences over the last few years has been as follows: we talk a brilliant game - about collaboration, surrendering control, engaging participants, building communities - and then the actual examples have often been thin, or guarded, or rather more traditional than might have been expected. (Ewing, 2012, para. 2)

While technology is an ever-increasing component of everyone's daily life and has a huge impact on the way education is and can be delivered—both in face-to-face settings as well as in online learning environments—it is important that we consider the training, development and educational needs of learners. It is these needs, rather than technology's capabilities, that need to be considered as new programs are developed. Lea and Nicoll (2002) introduce the subject of distributed learning by reminding readers that it is the social and cultural aspects, rather than technology, that really matter. Along with Dias and Atkinson (2001), Payne (2004) suggests that information technology allows us to seriously consider "best practices" (p. 231). Lock (2006) is clear about what makes the difference in course design:

Designing an online learning environment that fosters the development of a learning community is not about adding technology on to current professional development practices. Rather, it is about designing, building, and supporting a structure and a process that are purposeful and fluid in nature and in meeting the personal ongoing professional development needs of teachers. (p. 663)

If one believes that significant learning opportunities require learners to be active, interactive and reflective, online environments are increasingly able to support these requirements (Payne, 2004). "Successful distance education programs provide ample opportunities for dynamic exchange that add meaning and value to course content" (Rovai, Ponton & Baker, 2008, p. 3). These authors go on to discuss the importance of the presence of the instructor and the sense of community for value added.

However, there is some evidence that *support* may be less important than *quality of the course* in and of itself. A quantitative study conducted with middle school mathematics teachers—participating in one of four randomly assigned online courses to improve student learning outcomes—indicated that there is no significant difference between the results of a self-paced unsupported course and that of a highly supported (i.e., instructor, facilitator, peer interactions) course or either of the medium-support courses in the study (Russell et al., 2009). Authors of the study were attempting to dispute an earlier study, by the same group, that indicated the same "no significant difference" result (Cary et al., 2008). Each study focused on only one course delivered exclusively to volunteer middle school mathematics teachers and which had considerable attrition during the course delivery. The results challenge the concept that interaction between peers enhances online courses. The authors pose the question about state- or division-imposed professional development. They suggest that teachers that are enrolled under those circumstances, or teachers from a different field of study, may significantly impact results. Interestingly, the results of these reports indicate that self-paced and facilitated-cohort approaches did not significantly affect the positive outcomes of the professional development experience. The researchers suggest further examination is required for better understanding, since their study group included only self-selected participants (as opposed to

teachers who are participating as part of their school division's expectations or requirements). The researchers noted, as well, that different course material or different types of teachers may affect the outcomes (Russell et al., 2009).

Consideration of self-selected participants compared to required participation (as is some professional development) raises the issue of barriers that may either prevent or limit engagement in the opportunity. Berge and Muilenburg (2000) developed a survey to investigate barriers to distance education. Those highest ranked barriers included increased time commitment, lack of money, organizational resistance to change, and lack of shared vision. They concluded that there is a need for "cultural change" throughout organizations involved in distance education and training. This research looks specifically at distance education in general rather than professional development. However, some of the barriers may be the same, especially the concept of the need for a cultural shift by those involved in the delivery of the professional development.

The literature supports the notion that asynchronous online professional development platforms have the potential to create many of the same elements as traditional professional development activities, while allowing teachers the implementation and reflection time that traditional, single-session professional development opportunities cannot accommodate (Hratinski, 2008; Lock, 2006; Payne, 2004). Although the literature is not definitive about the need for ongoing outside facilitation (Cary et al, 2008, Rovai, Ponton & Baker, 2008; Russell et al, 2009), there is no argument about the importance of course design (Cary et al, 2008; Dias & Atkinson, 2001; Lee & Nicoll, 2002; Lock, 2006; Payne, 2004; Russell et al, 2009). Although a cultural shift may be necessary within organizations to begin to allow people to accept the notion that asynchronous online professional development is a better or another way to go (Berge &

Muilenburg, 2000), it seems likely that this area is on the cusp of making a difference to professionals around the world as technology, and technology adoption, continues to improve. Part of that shift may mean that both the consumers and suppliers understand that good professional development is a process—not an event.

As an overall summary of the three areas of interest, the current academic literature speaks to differences in the experiences of rural and remote teachers compared to their urban counterparts, including isolation and varied workloads. These differences affect professional development needs in a profound way. The needs are both personal and contextual. Some of these needs may be able to be addressed by the provision of ongoing asynchronous online professional development opportunities. These opportunities need to provide quality experiences with participant input to be sustainable.

Chapter 3: Methodology

"The only use of a knowledge of the past is to equip us for the present." (Whitehead [in 1929], 1997, p. 3)

This study is based on a qualitative research approach, utilizing case study methodology and semi-structured interviews of three senior provincial educational administrators. This research takes place within a transformative perspective, indicating that at the end of the research, there is hope that change may occur. Transformation may happen at an individual level—where an individual feels empowered to make a difference—or at a systematic level. Mertens (2005b) describes the transformative paradigm as providing both a philosophical framework and methodological guidance for those working in "culturally complex communities in the interest of challenging the status quo and furthering social justice" (p. 8).

The primary research question in this study is: "What are the perceived challenges and potential benefits of offering distance asynchronous online professional development to teachers in rural and remote Saskatchewan?" In support of this primary question, the following topics are addressed: the key differences between the professional experience of teachers in rural and remote (compared to urban) Saskatchewan; the current method the Ministry uses to deliver professional development to teachers to support teacher implementation of curricula and new ministry initiatives; how specific decisions are made about what professional offerings are to be delivered; perceptions about the current environment for asynchronous distance professional development; and the potential benefits of asynchronous distance professional development.

Qualitative research

To determine the type of research that is most appropriate for any study, the purpose, uses and audience of that study must be considered. Qualitative research is fundamentally different than quantitative research in many ways, and commonly relies on a small sample size emphasizing deep understanding (Patton, 2002). Although there is no formula for determining who to interview (Toma, 2006), purposeful sampling infers that the researcher has a sound reason for choosing who to engage for more depth of understanding. It is "a broad approach to the study of social phenomena" (Marshall & Rossman, 1999, p. 2) and is more appropriately used to "build rather than test concepts, hypotheses, and theories" (Merriam, 1998). Patton lists three types of qualitative data that can be collected: interviews, observations and documents. Data for qualitative analysis typically comes from field work, and the "themes, patterns, understandings, and insights that emerge from fieldwork and subsequent analysis are the fruit of qualitative inquiry" (Patton, 2002, p. 5). In this case, the researcher was looking for individuals who could provide a broader provincial understanding.

The type of fieldwork that a researcher chooses should ensure that the data that is collected will assist in addressing the primary research question. Typically, qualitative researchers want to collect data directly from the source, essentially becoming the research instrument to ensure that they are as close to the data as possible (McMillan & Schumacher, 2010; Patton, 2002).

A qualitative research approach was used in this case because the focus is on interpretation of the *decision-making processes* affecting the design, development and delivery of current professional development. "Pragmatic, interpretive, and grounded in the lived experiences of people" are three elements which comprise qualitative research studies (Marshall

& Rossman, 1999, p. 2). Further, the information gathered will be used to consider the potential of asynchronous online professional development as a delivery tool for these teachers.

Research Perspective

The perspective taken here is that of a transformative paradigm. When a researcher considers that multiple realities are affected by socio-economic, cultural, political, ethical, disability and gender-based variables, she works from within a transformative paradigm (Mertens, 2005). The knowledge that is currently being used to determine how professional development should be offered to teachers is "socially and historically" situated (Mertens, 2005, p. 9). Potentially, educational leaders continue to offer what they always have for three key reasons: (a) it is what they know and understand; (b) there are few distance education experts involved in the current organizations that deliver professional development; and, (c) teachers do not understand or are unaware of the potential and have therefore provided no demand for this approach. Asynchronous distance professional development could provide an emancipatory function for rural and remote teachers in small schools. The ability to access quality professional development opportunities *when* and *where* teachers wanted would assist in their freedom from the current model of *located*, single-shot professional development.

Just-in-time professional development is a relatively new phenomenon (Feist, 2003). An online platform is one way of providing this type of opportunity. Lock (2006) acknowledges that just-in-time professional development requires a change to current perceptions. On a practical level, it would decrease the stress of driving great distances to participate in one-day isolated courses, which is currently the norm. On an educational level, it would allow for follow-up and

sharing where no follow-up and or peer-based sharing was previously available. Lock (2006) goes on to emphasize that both decision-making power and direction should come from the participating members themselves for the community to be sustainable. In their preface, Oduaran and Bhola (2006), as editors of the book *Widening Access to Education as Social Justice*, consider providing adequate educational opportunities to the global population as one of the greatest challenges of this century. Authors of the first chapter cite Nigerian educator Omolewa as a "strong champion of distance education as a channel for widening access to mass education" (Adekanmbi, Aderinoye & Sarumi, 2006, p. 14). The current experience of Saskatchewan teachers does not provide equal or adequate professional development opportunities for rural teachers as compared to urban teachers. Thus, the need for equity of access remains a crucial factor in improving conditions for rural and remote teachers; and asynchronous distance professional development provides a possible method to address this access issue.

Case study

Although there is some argument about whether or not case study is a method in and of itself, many academics consider it to be a specific type of qualitative research method, as opposed to part of a larger type of methodology (Marshall & Rossman, 1999; McMillan & Schumacher, 2010; Merriam, 1998; Yin, 2009). Regardless of personal belief, Stake (2000) indicates that the concentration remains on the case. "A case study is an in-depth analysis of a single entity" (McMillan and Schumacher, 2010, p. 344) and is useful when the focus of inquiry is on organizations or groups, rather than individuals (Marshall & Rossman, 1999).

Case study is an appropriate approach for considering teacher professional development in the province, because a single entity will be considered, and the study will be bounded as a "spatially delimited phenomenon observed at a single point in time or over some period of time" (Gerring, 2007, p. 19). The time period is important in this case, as the provincial restructuring of school divisions in 2006 and regional divisions in 2008 are relatively recent (Kirk, 2008; Government of Saskatchewan, 2009). Additionally, the Saskatchewan Ministry of Education (2010b) is undergoing a renewed curricula period. The research attempts to optimize understanding of the professional development needs and accessibility to a specific population of teachers—those teaching in small rural or remote schools in the province—through the interview questions that were posed to the three Regional Superintendents of Curriculum and Instruction, who each serve an area that collectively covers the entire province.

Both the process and product of the inquiry are critical to understanding the case itself (Stake, 2000). The bounding of a case—to the perspective of the current Regional Superintendents, as well as the researcher—is intrinsic to the approach (McMillan & Schumacher, 2010; Merriam, 1998; Stake, 2005; Yin, 2009). This bounding indicates that previously—and in the future, because of a potential change in context—the data and generalizations drawn from that data may not be relevant or useful. However, developing a better understanding of this particular case has worth in and of itself—namely, the idea that if rural teaching experiences were better understood, then improvements to professional development opportunities for teachers in rural and remote Saskatchewan could be conceptualized and implemented.

The terms *intrinsic*, *instrumental* and *collective* distinguish between different types of case studies (McMillan & Schumacher, 2010; Stake, 2005). Providing insight into an issue is

considered to be an instrumental case (Stake, 2000). This research study is based upon the instrumental approach: that is, the study is interested in not only understanding small rural and remote teaching situations better (which alone would be intrinsic), but in understanding and bringing insight into the decision-making processes that are involved in delivering professional development for new curricular initiatives to these individuals (instrumental).

Case Description

The specific population of interest for this study is teachers who work in small schools (defined earlier as schools with about 100 students or less) in rural and remote Saskatchewan (also defined earlier). The scope of interest is the professional development surrounding provincial initiatives and curricula, offered to teachers, specifically in terms of determining if asynchronous online professional development has a place or role. However, in the province of Saskatchewan, with a relatively small teaching population, the majority of professional development offered by the Ministry is to all school divisions. Therefore, the population needed to be broadened to include the general Saskatchewan teaching population.

The collective perspectives and understandings of the three Regional Superintendents of Curriculum and Instruction for the province (herein after referred to as Regional Superintendents) were solicited. The Regional Superintendents are primary Ministry contacts for school division personnel. These three can provide the "professional development supply" information needed to deepen an understanding of professional development. These three individuals collectively know what is happening on the provincial scene, and to what extent online professional development is being utilized. Although they are not currently involved in

the day-to-day delivery of professional development to teachers, they interact regularly with those who do. The interview data is used to analyze the historical and current provincial picture of teacher professional development opportunities, the decision-making behind the current offerings, and the potential benefits and barriers to offering asynchronous online professional development as an option to increase accessibility.

Since 2008, the Saskatchewan education system has been divided into three regions—North, Central, and South—the Directors of whom report to the Executive Director of Regional and Integrated Services, who in turn reports to an Assistant Deputy Minister of Education. Each of the three regions, includes a Director and a Regional Superintendent of Curriculum and Instruction, as well as various other professional and support staff. The Regional Superintendents are key members of each regional team of educators, as well as advisors to the Ministry itself. The Regional Office staff have the responsibility of supporting the school divisions, independent schools and Band Schools operating within their region. Together the three regions comprise a total of 721 schools in 28 school divisions, providing "learning programs in both English and French languages to 164,660 PreK/Pré-Maternelle and K-12 students in provincially funded and independent schools" in the province (Ministry of Education, 2011). Additionally, there are over 80 Band Schools in the province (Government of Canada, 2001).

The North Region is comprised of three school divisions. Within these school divisions, there are 23 schools, 10 of which are small using the definition established for this proposal (less than approximately 100 students). The Central Region contains 15 school divisions with 381 schools. In this region, there are 104 small schools. The South Region includes 10 school divisions. These school divisions are made up of 317 schools, 110 of which are small.

Sampling

Sampling includes all three Ministry of Education Regional Superintendents of Curriculum and Instruction. They were invited to be interviewed (see Appendix A) and asked to respond to questions that investigated researcher interests (see Appendix B). Because the Regional Superintendents have positional capacity to drive new curricular initiatives and professional development that could occur around those initiatives, they are best situated to provide an overview of professional development within the province. Their perceptions and understandings provide unique insight into the broader provincial scene. The sampling is based on Regional Superintendents rather than teachers themselves because the Regional Superintendents have access and responsibility, collectively, for the entire province, and therefore should have the best overall view of what is happening within the field of professional development.

Patton (2002) uses the term "purposeful sampling" to describe a research design strategy that is aimed at insight about a phenomenon rather than attempting to develop a generalization. It is important to understand that while interviewing the three Regional Superintendents provides insight into the overall current Saskatchewan provincial scene, it may or may not provide insight into other provincial, national or international situations.

Interviews

One method of collecting data within a case study methodology is interviewing. Fontana and Frey (2000) caution that a certain amount of ambiguity remains, no matter how carefully interview questions are worded or answers are coded, but still list it as "one of the most common

and powerful ways in which we try to understand our fellow human beings" (p. 645). Kvale (1996) defines the seven stages of an interview investigation as: (1) thematizing, (2) designing, (3) interviewing, (4) transcribing, (5) analyzing, (6) verifying, and (7) reporting (p. 88). Current ethics standards often require an additional stage to be included—between transcribing and analyzing—that allow for participants to review the transcriptions and confirm that they reflect their desired responses and reflections within the interviews. It is during this time that additions, deletions and corrections can be made by interview participants.

Qualitative research involving interviews should aim to "minimize the imposition of predetermined responses" (Patton, 2002, p. 353). Interviews (rather than a questionnaire or survey) were used in this study to allow for direct and more informal interactions between the researcher and the participants whose knowledge was being sought. Interviewing allows for more flexibility and adaptability as data is being gathered (McMillan & Schumacher, 2010). The information gathered was more personal in nature, as it addresses perceptions and insight. Thus, interviews were more appropriate for this type of data collection.

The data to support the case study was collected by personal interviews. Interviews were used to collect information from each of the participating Regional Superintendents about their perceptions of, and experiences with, the realm of professional development in Saskatchewan. Kvale (1996) provides the answer to how many interviews to conduct as, "Interview as many subjects as necessary to find out what you need to know" (p. 101). In this case, the three interviews provide a general oversight to the entire province of Saskatchewan.

A semi-structured format was used in the interview process. "An interview is a conversation that has a structure and a purpose" (Kvale, 1996, p. 6). It is important to ensure

that, as a conversation, input from both parties is embraced and explored. Semi-structured interviews were used to ensure that in addition to presenting a base set of questions, the interviews had the flexibility to include unique direction from each of the participants. The interviewer has ample opportunity to ensure that her own purposes are met through the initial development of the questions. Equally important is that participants have ample opportunity to be heard on details that they feel are relevant to the topic at hand.

A semi-structured format does not provide choices to select (i.e. structured), but rather allows for individual responses that may provide deeper and more meaningful information (McMillan & Schumacher, 2010). Further, a semi-structured format provides a general order, ensuring that questions the researcher wants addressed will occur in the process, but allows for the interview to reach into topics that the interviewee may feel are important but were not included in the original interview questions. Semi-structured interviews allow the researcher to focus on details and description (DePoy & Gitlin, 2011) rather than thinking about the next question that could be asked.

The interviews were designed to last for approximately one hour, to allow time for thought development without taking up an onerous amount of the participant's time. As the qualitative research interview is "theme oriented" (Kvale, 1996, p. 29), questions were clearly separated into the three areas of interest to the researcher: urban and rural, professional development and asynchronous online professional development. Flick (2006) suggests including three types of questions in a semi-structured interview: (a) open questions, (b) theory-driven questions, and (c) confrontational questions. In this case, the interview questions used (see Appendix B) were open and theory-driven questions, as there was no intention to have any Regional Superintendent become positional about the current professional development scene;

rather, the objective was simply to gain insight into their perspectives. Open questions were used to ensure topics could be explored without restriction. Theory-driven questions were used to ensure information specific to the research question was collected. The content of the interviews was then thematically organized to find challenges, perceptions, and the potential of asynchronous online professional development for teachers in rural and remote areas of Saskatchewan.

The interviews were digitally recorded on two devices to ensure audibility, accuracy and to minimize the potential for data loss. The audio files were then transcribed by a professional third-party service. Transcriptions of the interviews were provided to the participant, post-interview, for revisions, additions, and deletions prior to analysis. This method provides participants with an opportunity to ensure the interview transcripts accurately reflect their opinions and voice. Once this review took place, the participants were asked to sign a transcript release for the data, indicating that the content—including direct quotations from that data—can be used at the researcher’s discretion within the thesis and for any future publications (see Appendix C).

Analysis

The research is theory-seeking, rather than story-telling or evaluative. Case studies that employ a theory-seeking or theory-testing approach aim to propose basic generalizations, while conveying the context surrounding them and the evidence leading to them (Bassegy, 1999, p. 12). Interview data and relevant documentation were analyzed to seek meaning in relation to current

professional development delivery experiences for small-school teachers in rural and remote areas of Saskatchewan, rather than simply provide a description of current practices.

Hillway (1969) reminds educational researchers to classify all data by category, analyze for preciseness and credibility, and ensure that the correct meaning is interpreted (p. 6). These features of analysis must be present if the general theory tested with the data is to be meaningful. Theory development on the challenges of asynchronous online professional development requires the data to be analyzed without underlying preconceptions blurring the actual data. Researcher reflexivity was essential during this process to ensure that self-interest in asynchronous online professional development did not unduly influence either data collection or data analysis. Reflexivity in this case included considering the influence of rural small school experience, as well as interest and experience with asynchronous online formal professional development—on not only what is learned from the interviews and analysis, but also how that learning occurred.

McMillan and Schumacher (2010) suggest that there is a continuum of analytical styles ranging from "prefigured technical" (objectivist) to "emergent intuitive" (subjectivist) (p. 368). Data analysis in this case aligns most closely to the subjectivist approach given the researcher's immersive role in the interview experience and coding. Years of researcher experience within the field provided a strong sense of some of the categories that were likely to emerge, but generally, analysis was forefront in letting categories develop as the data unfolded.

A recursive process was used. Categories were determined from initial memory of the interviews. After the interviews were transcribed, further categories were added. Lastly, detailed analysis was conducted to finalize categories and discover patterns. These patterns assisted in the development of some generalized possible future suggestions and directions.

The qualitative data analysis software nVivo was used to assist in coding the data. The coding process assisted in identifying topics or themes that emerged from the interviews. It is critical as a qualitative researcher to ensure that openness to new ways of understanding is maintained and to not limit or allow bias to get in the way of understanding the data that is collected (McMillan & Schumacher, 2010, pp. 371-376). The coding process used an inductive approach, exploring the interview transcripts for the most common codes allowing for categorization and theme development. Theme development assisted in identifying possible answers for the original research question.

Ethical Considerations

Given that there are only three Regional Superintendents of Curriculum and Instruction in the Province of Saskatchewan, and that these individuals are well known, their individual opinions may be identifiable. Participants were made aware of this consideration prior to their contributions.

Consequently, the following consent notice—as set out by the University of Saskatchewan Behavioural Research Ethics Board (BeREB)—was provided in advance of the interview: "Because the participants for this research project have been selected from a small group of people, all of whom are known to each other, it is possible that you may be identifiable to other people on the basis of what you have said." As such, each participant had the opportunity to review their interview transcripts prior to the data being included in the final report—to add, alter, or delete information from the transcripts as he or she saw fit. Participants had the option of having a pseudonym or their real name used within the reports. All three opted for the latter; however, no names were required or used in the final document.

The University of Saskatchewan BeREB *Invitation to Participate and Consent Form Template* (Appendix A) was used as the basis for the consent forms sent to each participant to sign prior to the interview process. In the letter of invitation, each potential participant was assured that it was a choice to participate, and that no further explanation would be required should that person choose to not participate.

The potential benefit of participation for the interviewees is the broadening of understanding of professional development for rural and remote teachers. Given the propensity of communication and interaction to further personal reflection, it is hoped that the interviews provided an opportunity for busy professionals to expand their understanding of the options and opportunities for additional practices for professional development within the province that may offer benefits, specifically, for teachers in rural and remote areas. An electronic copy of this report will be forwarded to each participant, upon request.

Chapter 4: Findings

"The ability to reflect, to evaluate, to program, to investigate, and to transform is unique to human beings in the world and with the world." (Freire, 1997, p. 34)

This chapter presents raw interview data from the qualitative research case study conducted to provide an overview of participants' insight into the potential for asynchronous online professional development for teachers in rural and remote Saskatchewan. Interview participants were the three Regional Superintendents in charge of Curriculum and Instruction for the Saskatchewan Ministry of Education (hereinafter referred to as participants). A semi-structured question guide (see Appendix B) was used to elicit participant responses concerning the three main areas of the study. The three interviews took place over the course of a month, from October 18, 2011 to November 17, 2011 and were conducted in the participant's workplace (office or boardroom) as each saw fit. The data contained in this chapter is the result of those interviews.

To determine the perceived challenges and potential benefits of offering asynchronous online professional development to teachers in rural and remote Saskatchewan. Interview questions were grouped according to the three contextual areas presented in the introduction to this document: (a) the rural and remote teaching experience, and if and how this is different from an urban experience; (b) if differences exist, how those differences affect professional development needs and opportunities; and (c) the potential for asynchronous online professional development to address these needs, and what challenges there may be to providing asynchronous online professional development in this manner.

After an introduction to the questions for each area, the interview data is presented with an overview of key findings within each area, followed by participants' direct quotations. These areas should not be seen as discrete realms, but rather as constituent parts of a whole—the separation only serves to draw focus to different entities, and their role in addressing the main research question. Any blurred lines between areas should be considered as natural.

Personal names are not used to identify the interview participants. However, participant comments are uniquely attributed by one of the following notations—CRS, NRS and SRS.

Rural and Remote Interview Findings

Four questions were posed to draw out participants' thinking about the issue of fundamental differences between teaching experiences in urban settings versus rural or remote settings. Beyond the first question inquiring as to whether they in fact saw a fundamental difference, the questions were open-ended, probing benefits and challenges of both types of teaching experiences. Because all participants agreed that there were fundamental differences in the teaching experiences, the data is presented in the following order: main differences, challenges of teaching in a small rural school setting, benefits of teaching in a small rural school setting, challenges of teaching in a large urban setting and finally, the benefits of teaching in a large urban setting.

There were six broad fundamental differences between urban and rural teaching experiences raised by the participants. The identified differences were: the professional expectations and demands of senior high school teachers with combined-grade classes (SRS, p. 6); the distances that need to be travelled (CRS, p. 3); the availability of resources, both human and other resources (NRS, p. 7); the opportunity to "develop a different rapport with your

students" (SRS, p. 6) because of the amount of time you spend together, not only in the classroom but as a coach as well; communication issues caused by lack of dissemination of information (NRS, p. 7); and, the issue of teachers who are not adequately supported by their administration because of the lack of enough release time to participate in professional development opportunities (NRS, p. 9). The explanation of why a senior high school teacher would have the "biggest difference" (SRS, p. 6) is because of the incidence of combined-grade classrooms in rural areas; and the need, for example, of the mathematics teacher to have to teach two entirely different math courses to two different grades during one period while also accounting for individual differences in student ability, now expanded across two grades. Additionally, teaching subject areas outside the area of a teacher's expertise is more challenging with older students because of the degree of specialized knowledge required for senior subjects.

Participants collectively identified the following areas as challenges of teaching in a small school setting: (a) distance, (b) lack of knowledge and/or experience in teaching areas, (c) lack of colleagues teaching same-subject, (d) communication issues, (e) release time and/or administrative support, (f) teachers trained out-of-province (i.e., not familiar with provincial curriculum), and (g) safety and teacher turnover. Not all participants identified all of these challenges, but there were no dissenting opinions.

Distance was an issue that was raised by all three participants. It was reflected in themes such as: the distance for teachers to travel to professional development opportunities; the distance to access graduate studies; and the distance to bring knowledgeable Ministry staff to rural and remote areas. These themes emerged from comments such as: "the distance that folks need to travel" (CRS, p. 3) to get together; the ability to access university courses "because of distance" (SRS, p. 8); and the need to travel south for professional development because "it was

never brought to us in the North" (NRS, p.7). Distance, along with other differences, was raised as a reason for extra Ministry support:

The largest thing that we see and hear about is always the distance that folks need to travel....Rural school divisions always want the Ministry to recognize that there's a difference for them and that it requires more funding and...to enable them to do some of the same things that we usually do in a larger school division in the city. (CRS, p. 4)

Another group of challenges identified was the lack of knowledge or experience, and the recognition of solitude, when you exist as the only teacher in a subject area. Both circumstances speak to the potential need and desire for professional development or professional support. One participant mentioned that the lack of departments within a school can leave a teacher feeling "certainly alone" (SRS, p. 10). Perceived or real lack of content or age-appropriate knowledge also speaks to the diverse teaching load that is demanded of rural teachers, making it likely that there will be "teachers who are trying to teach in areas that are certainly not in their background" (SRS, p. 6).

Teachers trained out-of-province (NRS, p. 15), safety issues (NRS, p.16), teacher turnover (NRS, p. 14), and the resulting effects on professional development needs were additional challenges, raised solely by the interview participant with responsibilities in the North.

On the flip side of challenges, three primary benefits of teaching in rural or remote areas were identified by the participants. Both "networking" within the small community (NRS, p. 12) and the feeling of "family" within the school (SRS, p. 10) emerged as benefits of teaching in rural and remote areas. Additionally, working with a small staff was seen to allow for teachers to get involved in areas that would be less likely to occur in a larger school. "It allows you to expand your knowledge...really get a little bit more experience in areas that you may not have been exposed to in a larger centre" (CRS, p. 7). In spite of a lack of perceived knowledge

mentioned in the earlier section, one participant intimated of teaching in a small school, "You may not know the material as well, but I think there's a lot of forgiving there" (SRS, p. 9).

When it comes to school size, the only challenge that was put forth for teaching in a larger school setting was isolation, because you are one teacher on a large staff, and because the student population is so large you may have difficulty in making connections. As one participant noted, "You don't even really get to know people that you work with" (CRS, p. 8). Another participant compared the closeness of knowing every student in a rural school, and developing specialized programming for individual students, to the larger class sizes in urban centres as a type of challenge:

That is not the same as in the urban settings. You can't. You do teach maybe more of the subject as opposed to teaching students. You teach subject. You teach content. (SRS, p. 9)

The broadest spectrum of opinions emerged surrounding the benefits of teaching in a larger school setting. Like-subject colleagues (NRS, p. 13; SRS, p. 6), proximate access to universities (SRS, p. 8), extensive school division staff that are often more accessible (CRS, p. 4; SRS, p. 21), the ability to meet for an hour after school with colleagues from other schools and "still be home for supper at five" (CRS, p. 5), and the volume of and accessibility to resources—human, technological, and textbooks—were all mentioned as benefits for teaching in large schools. The benefits of more human resources were addressed by participants from within a larger school division, and specifically by one participant from within a larger school itself:

They'll have a math department and certainly a language arts department. And so there's an opportunity for them to do a lot of sharing, a lot of professional learning—communities right within their own school. And I think that's huge. (SRS, p. 7)

Two participants identified benefits of working in an urban centre and thus illuminating what may be missed by teachers working in small schools in rural areas:

The benefits, most of all, are that you can have folks from your school division office that are in supportive roles—third level services, coordinators, superintendents—go out to your school regularly. They can go out and pop in and just see something that's going on or support a lesson that you are doing. It doesn't have to be so planned and it doesn't have to be such a big deal. (CRS, p. 5)

[When I worked in a larger urban centre] we were provided an hour of preparation time to network with other teachers [that taught the same grade and subject area] and that's when we actually talked about the curriculum, where we met and produced units based on the curriculum. We would network...and talk about assessment and create rubrics together. It was wonderful. I loved it. We would share resources. Like if somebody's reading a professional development book, we would have a sort of a book talk. (NRS, p. 13)

In summary, the participants were in agreement that there are broad fundamental differences between urban and rural or remote teaching experiences. All participants could identify benefits for larger or smaller school teaching experiences. Although each participant had different starting points, similarities in their responses came forth during the overall discussion on the topic of urban and rural. Many of the challenges that were identified for small school teachers spoke to a sense of isolation, lack of collegial support, and increased workload in a variety of capacities (e.g., outside area of expertise, and increased number of subject areas). Generally, there was more emphasis on the disadvantages, rather than the benefits, of the rural and remote experience. However, all participants could identify elements for benefits and limitations of each localized experience.

Professional Development Interview Findings

In the interviews, questions posed around professional development explored current practices within the Ministry, but also reached beyond that scope to look at other professional

development happening within the province at a school division level. Face-to-face professional development was discussed, as well as potential differences in needs and desires for professional development.

This section provides details on the data about the current and historical Ministry of Education involvement in professional development of teachers surrounding new curricula. Participant perceptions about the capacity of school divisions to provide support to their teachers are also presented. Finally, benefits and limitations of face-to-face professional development are identified.

A dominant response expressed by interview participants was that the Ministry of Education has moved away from its previous model, which involved direct training of classroom teachers, to a "train-the-trainer" model, which focuses on training school division personnel for these purposes (CRS, p. 9; SRS, p. 13; NRS, p. 23). All three participants confirmed that this was the new standard, but only one directly indicated that it was not necessarily ideal because it has "taken away from teachers that chance to be able to internalize" (NRS, p. 24) curricular changes. One participant commented on the specifics of workshops:

In this position, whenever we do any kind of workshops or work with the curriculum consultants to do workshops, we are always keeping in mind if its information that is presented that individuals can take back to school divisions, and use it and present it in the same way to their staff. So kind of a train-the-trainer model. (CRS, p. 9)

Teacher expectations of the type of professional development that should be offered have changed over time. One participant mentioned the need for "authenticity" so that "when teachers go away from that particular day, they feel that they've gained something that they can take away and actually use in the classroom" (SRS, p.11). Another participant put it this way:

I think teachers are increasingly expecting to see professional development provided in the way that they're expected to teach. So if you're talking about a new curriculum that's built on an inquiry basis [as the new Saskatchewan curriculum is], and you are providing professional development that isn't inquiry-based, you are going to be challenged. (CRS, p.2)

All three participants mentioned the new hour-length live satellite presentations that have been recently offered by the Ministry. Two of the participants perceived this as a positive move to increase accessibility to teachers (CRS, p.10; SRS, p. 1), beyond the few face-to-face workshops that are targeted more towards school division representatives (which may or may not be classroom teachers, depending upon the size of the school division and/or their training model).

Additionally, the live satellite presentations were seen to provide "all teachers with that accessibility. You can listen to one of the consultants discuss their curricula live, and you can chat with them either there or else later on" (NRS, p. 27). These presentations, as opposed to the train-the-trainer workshops, are seen to provide teachers in the field with direct access to those considered to be experts in their content areas. To distinguish between the two main professional development offerings from the Ministry, participants noted that the satellite presentations are designed for classroom teachers and division personnel whereas the workshops are designed for division personnel to then use within school divisions to train teachers.

All three participants agreed that there were different needs for teachers working in rural and remote schools compared to urban schools. The lack of collegial support of teachers who teach in similar content areas or with students of similar ages (CRS, p. 15), less access to school division consultants in some subject areas in rural school divisions (SRS, p. 20), and lack of

knowledge of specific curricular changes (NRS, p. 34) were some of the specific examples cited by participants as to why these needs are different. One participant elaborated:

I think that the rural would have a greater need for professional development, because they don't necessarily have, like I said, that support of other teachers teaching the same subject area or having...departmental meetings where you have your meeting once a month with eight people and nine people that are science specialists. So you have that experience and that understanding to rely on. (CRS, p. 15)

Professional relationships—both of teacher to provider, and amongst attending teachers—was the most common response of participants when asked about the benefits of face-to-face professional development. A particular perspective was brought forward by one participant, citing that the advantages of having Ministry staff come North and present to teachers are the direct exposure to the feedback and the opportunity for questions about specific Northern issues:

When you bring folks from the south to the north, they understand their context a lot better than if they were still in the south and never came to the north. They understand some of the cultural differences, some of the language barriers, some of the lack of resources we have, lack of [subject] specialists. (NRS, p. 33)

Participants brought forward other issues that affect professional development requirements. There are teachers in the province who are instructing in areas outside their area of specialization. This has ramifications. There is a need for curriculum writers to understand this and provide better descriptions and explanations in the curriculum so that a teacher who is not specifically trained in that curricular area is able to utilize the document (NRS, p. 33).

Cost, time and lack of comfort were presented by participants as limitations of face-to-face professional development. The cost/time factor was not only in the expense of travel (CRS, p. 4), but also as an academic cost to the students when facing several days of substitute teaching rather than having the regular classroom teacher present (SRS, p. 19). Again, this was

mentioned as an issue in rural areas, where specialized substitute teachers are less likely to be found:

When you come back to your very small schools, you could be teaching in three or four different discipline areas. And if you're going away to a workshop for three or four topics, my gosh, in one semester, you're gone for eight days...Out of a 100 days [assumed for senior curricular courses] and again there aren't 100 days, but if you're gone for 10 days because of being away ill [for two additional days] well, that's 10%. That's huge. It's more than 10%. (SRS, p. 19)

Lack of comfort in provincial meetings was raised as a rural and remote challenge, as these teachers are more likely to be familiar with a smaller number of staff, and may find the larger group intimidating. "Some people don't like that group setting, and are just not comfortable with it. They don't want to sit at a table, and heaven forbid we ask them to introduce themselves" (CRS, p. 15). As well, sometimes teachers from Band Schools are asked to attend workshops with mostly larger school division consultants, which can cause concern about their "right to be there" (CRS, p. 17) or whether the content will be too challenging for them.

In summary, the Ministry has moved primarily to a train-the-trainer model, with the exception of their hour-long satellite presentations, which are designed to be for teachers and consultants. There are benefits of face-to-face professional development, but there are costs too in terms of time, money, and comfort.

Asynchronous Online Professional Development Interview Findings

Participants were asked five questions to elicit perceptions and understandings of both *actual practices* of professional development (to the limited extent that current practices have asynchronous or online elements), as well as the *future potential* for a more robust approach to asynchronous online professional development to add value to the provincial professional

development scene. Beyond its potential, asynchronous online professional development restrictions—even if those limitations or restrictions are localized—were explored. Questions were designed to investigate what (if any) environment and/or resource restrictions exist, as well as what (if any) elements need to be present or changed to increase the acceptance or adoption of asynchronous online professional development.

The data results presented some general insights into how asynchronous online professional development is understood or perceived by participants, as well as specific limitations that might be perceived. Specific benefits, too, were identified. Finally, details were presented about current Ministry practices in this area.

There was general agreement amongst all three interview participants that the current environment is favourable to moving forward with asynchronous online professional development (CRS, p. 21; NRS p. 43; SRS p. 23), in spite of various technological issues that were presented as well as varying degrees of hesitation. Two participants suggested that one reason why the Ministry of Education has not moved more quickly in this direction already was because of a lack of familiarity and/or comfort levels within the Ministry staff itself (CRS, p. 21; SRS p. 22) more so than a lack of demand from school division personnel. One participant brought this to life by saying, "there isn't an attitude or a philosophy or knowingness of enough people at a high enough level to say this is what we need to be doing" (CRS, p. 24). A second participant suggested, "I think our presenters—and I'm not 100% sure on this—but I think our presenters would prefer face-to-face" (SRS, p. 23).

When asked, "What reasons exist that asynchronous distance educational opportunities should not be pursued?" (Appendix B, question d 4), all participants were in agreement that there was no reason that forward progress should not be pursued. "I think school divisions need to

take as much money as they can and just go forward with it, Ministry I would say the same thing, but I know they won't do it in the same way" (CRS, p. 24). "I don't know at this time why we wouldn't pursue asynchronous. I'm not saying for everything, but certainly I think it's a good way to deliver some professional development" (SRS, p. 25). One participant indicated support of asynchronous online professional development by suggesting that, "what needs to happen is to do a survey" (NRS, p. 42) and then "loved" the idea of asynchronous online focused professional development. Following on this theme, the participant said the opportunity should be designed after teachers provide the topic and indicate an interest in this type of opportunity, however noting that, "I think there would be a couple communities that really, really like that, but I'm not going to say that the entire region would love it. And I think some communities would totally just not even do it" (NRS, p. 43).

The potential limitations of asynchronous online professional development were considered from both a *receiving* (i.e., school division employees and teachers) and a *providing* (i.e., Ministry staff) perspective by the participants. The possible limitations from a receiving viewpoint that were identified included: (a) reluctance of some people to participate in this type of opportunity; (b) the challenges of technology, both actual technological issues and the issues of some teachers being apprehensive of or unwilling to embrace technology; (c) potential for procrastination when there is no required, dedicated, or monitored time; (d) accountability; (e) presentation to and participation with unknown others may cause fear or feelings of inadequacy; and (f) potential lack of administrative support at a local school level.

General reluctance, challenges and potential for procrastination were reflected in comments such as, "Some people just aren't interested or don't see that they need to move that way at all" (CRS, p. 23). "It's so easy not to participate from a teacher's point of view, from the

receiving end" (SRS, p. 23). "I'm not going to say that the entire region would love it" (NRS, p. 43). "Sometimes the technology doesn't work" (SRS, p. 22).

One participant raised the issue of accountability by saying:

But I think unless you tell people it's professional development. You must sign up and go to a [virtual] workshop, there's people that will never—will never do it on their own. And I guess you can monitor that too. I think it gets a little more difficult to actually monitor if someone's participating generally. So that's a concern, I think. (CRS, p. 23)

The concern of presenting to an unseen audience was mentioned by one participant who expressed the following:

We're now presenting ourselves to an audience and we have no idea who's going to be viewing. We have no idea how accepting they are of this information because you can't read the body language. You can't read the non-verbal comments that you could in a face-to-face workshop. (SRS, p. 23)

The concern about participating as part of the receiving audience and need for more administrative support was illuminated in the following participant comment:

If I'm feeling inadequate, I might not want to speak out and ask anybody for any help, yet I might be struggling in my classroom still. But I think that's where the administration needs to support that teacher....They [administration] need to know their staff and know where they're at and understand that the person is struggling and what you can do to support that person. (NRS, p. 46)

The possible limitations from the providing viewpoint were addressed by two participants. These were: (a) no demonstrated "attitude" or articulated "philosophy of knowingness" (CRS, p. 24) from Ministry officials that this is the direction we should take; (b) the concern about "presenting ourselves to an audience who we have no idea who's going to be viewing" (SRS, p. 23); (c) lack of access to "non-verbal" (SRS, p. 23) communication to use as feedback by presenters; (d) lack of enthusiasm about embracing change in the way one presents and the resulting need for extra preparation (SRS, p. 23); and (e) perceived personal preference

by many of the Ministry staff for face-to-face (SRS, p. 23). "I would be lying to you if I told you that all of the writing consultants really look forward to me coming around saying, 'Hey, would you like to do a presentation [for the satellite broadcast]?'"" (SRS, p. 22).

The benefits of asynchronous online professional development addressed were presented only from a receiving side, as benefits to teachers. There was no mention, by any participant, of any perceived benefits from a Ministry or curriculum writer perspective. The participants identified potential benefits to teachers as having: (a) access to professional development where and when you want it; (b) the ability to network with other teachers who are teaching in a similar situation to yourself; (c) the removal of travel time and related concerns; (d) less time out of the classroom for individual teachers; (e) principals more likely supportive of an hour away from the classroom for participation rather than a whole day to attend a workshop; and (f) access to content experts. Many of these issues are raised in the following three extended participant quotes:

I think it [asynchronous online professional development] would provide them [teachers] with some of that background that they might be missing, some of that content that they might be missing out on so that they can do a better job. And if they can chat with the person who's developing it, they can ask all kinds of questions about how to get from point A to point B. And if it was done together with a group of people, then you have that network as well. (NRS, p. 45)

They like the weekly live broadcasts that we were doing, because if they couldn't sign on at the time that it was being broadcast they could go and find the broadcast. They really liked that if they want to watch it on a Saturday afternoon when their kids are at soccer or something, they can go and watch it and receive that professional development whenever it works for their schedule. They just really liked that. And that they could be in a space that is quiet and reflective and they have the time to appreciate it, more than just rushed, rushed, rushed, and it's an hour after school and you're thinking about a hundred different things, so...that's what they're saying about those. (CRS, p. 21)

In my short tenure here, we've already had a number of very, very difficult storm days. And I just think of what could have been done. You're in your school and you can

watch it [professional development] on TV and you don't have to worry about the storm. Let the storm pass and then you'll go home. Or, it's archived, so you can just go home. (SRS, p. 23)

For context, in the previous year the Ministry began offering live satellite presentations by some curriculum writers that are made available throughout the province. According to one participant, Ministry personnel are currently in the process of setting up a "...Blackboard site where you can access those previous [satellite] workshops" (CRS, p. 20), but there is no plan at this time to include an asynchronous interactive component. According to one participant, there is one curriculum that has gone back to a pilot teacher model (previously used in the 1980s and 1990s). There are 29 teachers piloting the new "Wellness 10" curriculum and the interaction is being captured through the online platform, Adobe Connect, so that teachers who are unable to meet in a central location or participate in real time are able to view the session and associated comments later. "And this is a curriculum where we have gone to a pilot model. Not all curriculums have them" (SRS, p. 20). Again, according to the participant, there are some technology concerns, but the Ministry is working to support this project. "Some teachers are saying, 'Well I don't even know how to use this yet.' So there's a lot of work that we need to do. But this is a great opportunity" (SRS, p. 20).

In summary, the participants all acknowledged the place and potential for asynchronous online professional development. The challenges—technological as well as systematic and personnel capacity—are viewed as decreasing over time because of a societal shift in the way people are using technology in their everyday lives, and the demand that participants indicated is coming from some school divisions. One participant suggests, "We need to see it modeled; we need to see examples of it. And that's why I say it needs to come from the school divisions"

(CRS, p. 28). But for now there is recognition of the current reality of some challenges that need to be overcome:

It's going to take a lot of support, and it's going to take a lot of time, and it's going to take a lot of mentoring. It's going to have to work damn near perfectly, because if there's ever a glitch, they're never going to try again. (CRS, p.28)

Chapter 5: Discussion

"Different tomorrows are possible." (Freire, 1997, p. 55)

This chapter provides an analysis of the data presented according to three areas discussed in the findings chapter: rural and remote, professional development, and asynchronous online professional development. The analysis of the interview data is woven with the knowledge gained through the literature to reach conclusions. Following the analyses, conclusions are presented in each area, as each area leads naturally into the next. The final conclusion is a summarized discussion of the main research question.

Following the research conclusions, limitations of the study are explored as well as consideration as to next logical steps. Possibilities that exist in the area of asynchronous online professional development are included. The chapter closes with recommendations for future research.

Rural and Remote Analysis

"To think of my homeland is to nurture my dream."
(Freire, 1997, p. 41)

This section analyzes the data gathered from participants that is related to rural and remote teaching experiences. Connections to existing literature are explored to highlight similarities and provide possible reasons for differences. Implications of the issues of distance, experience, workload, and lack of colleagues working in like-subject areas or with like-grade students are considered. Finally, concerns that are specific to remote locations are explored.

There was little hesitation on the part of the Regional Superintendents and few surprises for me as the participants began to provide details on what they felt were the challenges of working in a small rural school. The conversations for the most part confirmed what I felt that I already knew from personal experience as a teacher in various small schools and the literature I reviewed. Further to the seven identified challenges of teaching in a small school, the benefits of teaching in a larger school setting may conversely be seen as disadvantages of teaching in a small school setting—especially when it reflects the amount of and accessibility to resources and colleagues, the proximity of a university, and support from a larger staff in the school division.

Distance was a recurring theme. One participant stated:

The largest thing we see and hear about is always the distance that folks need to travel. And the difficulty in having opportunities to get together—how much time it takes, how much money it takes, how infrequent it is, because of the effort. (CRS, p. 3)

When referring to access to further education as professional development, another participant highlighted the easier access for teachers close to large urban centres by saying, "they're able to access university courses a lot easier, and it is because of distance" (SRS, p. 8). Finally, another participant noted that teachers in urban areas have better access to the "people that write the curricula or the Ministry of Education, because you're closer to those folks" (NRS, p. 13).

The challenges of schools in remote areas accessing speakers and their teachers accessing graduate work was noted by Askov (1974) as a "hardship for the rural teacher who, because of isolated geographical location, may be most in need of exposure to new educational developments" (p. 2). With all of the technological advances and handheld devices, distance as a key issue of delivering professional development in 2012 begs the question, why is this still an issue? We develop online courses for our students in small schools to ensure access to a broad

array of material and yet we are not delivering professional development in the same way to the teachers in those same schools. In a province that has 35% of the population living in rural areas, and with nearly 25 school divisions that serve principally rural populations, why has so little been done in the way of rural professional development initiatives?

The lack of experience and/or knowledge in various teaching areas was raised as a challenge for rural teachers primarily because of the unique workload of many small school teachers. These teachers need to teach many different subject areas, becoming more generalists than specialists. As the breadth of workload increases, the initial depth of background one brings is likely to decrease. In a small school, it is common on the one hand, to have trained high school teachers involved in elementary education; and, on the other hand, to have elementary teachers stretched to instruct in content areas in which they may not feel completely comfortable. A participant indicated that if a teacher gets a "job with only biology, that's not going to work because we need people who can teach a wide range of things", and adds that in some schools that teacher would be "the only teacher in the high school" (NRS, p. 16). Another participant notes that in rural schools, one teacher with a wide variety of courses to teach "may not be really strong in math and maybe not as strong in biology or chemistry", but adds with strong feeling that those situations can work out very well with "good teachers" who are "intelligent human beings" and are "able to learn the material" (SRS, p.9).

However, it is important to draw attention to the increased workload and demand this more diverse teaching load places on teachers in these situations. A Grade Twelve teacher in the areas of mathematics, language arts and the sciences must either be accredited in his subject area, or the students are required to write standardized departmental examinations. Large urban centres often make accreditation a requirement for any teachers that they consider for Grade

Twelve teaching positions. In a rural area, where one teacher may be responsible all the sciences and mathematics, four separate accreditations—with five-year renewal requirements—need to be maintained by one teacher to afford the students the same standard of experience. The need to gain content knowledge and continually maintain rigorous provincial accreditation standards can hardly be considered as *just* another professional development expectation for these teachers. Rural teachers continually rise to the challenges they face. "The only thing more amazing than the demands placed upon the rural teacher is the fact that many of them succeeded in this role" (Sher, 1981, p. 66).

Expectations for explicit numerical accountability or, in some cases, marks—not only to students and parents, but also to school division personnel through increased standardized testing—continue to rise, tacitly increasing teacher workload. Two examples are new curricula and learnings implementations such as Saskatchewan's Treaty Essential Learnings (declared mandatory for K-12 by Saskatchewan Learning in 2007), as well as the new curricula currently being implemented (Government of Saskatchewan, 2009). Further, the mathematics curriculum has taken an entirely new approach, and there are increased pressures to tangibly monitor reading levels of elementary and middle school students, necessarily resulting in an increased need for professional development. Mokolky (1995) indicates that the process of implementing change while balancing local and provincial priorities in the face of declining resources challenges not only systems, but the individual teachers within those systems. Traditional methods of professional development often mean time out of the classroom, further increasing teacher workload due to the necessity of preparation for a substitute teacher as well as for the professional development itself.

The "biggest difference is in your senior classes" where you are a "lone ranger" because "you are the math department, you are the English department" (SRS, p. 8). This opinion was shared by another participant, that one of the "challenges in a smaller [school] is you don't necessarily have opportunities to connect with people that are teaching in your same subject area" (CRS, p. 7). The concept of subject departments providing support and opportunity to interact with others by sharing ideas and experiences was highlighted by Preston in her 2006 research on the experiences of rural and urban Saskatchewan teachers. The advantages of "a lot more teachers in a large setting" providing you with "that opportunity to network" (NRS, p. 13) can subsequently be interpreted as the *lack* of teachers in small schools resulting in decreased networking opportunities—again indicating the importance of like-subject colleagues. There is no "critical mass" and therefore an experience of "professional isolation in rural schools" as Preston (2006) reflected on when citing Erlandson's 1994 study on principals in Texas (p. 31).

Specifics about communication and administrative support in remote schools seem to be a challenge that is more specific to individual school divisions, as opposed to school size. When referring to access to information about professional development, one participant stated, "communication - that's a big problem" (NRS, p. 7). Beyond communication, she further reflected that "teachers are so busy, too, they don't get the release time" because in some cases they are "not supported by their administrators" (NRS, p. 9).

Teachers who are completely new to Saskatchewan curricula obviously require very different professional development than those who were trained in the province. There are two possible reasons why this may have only been raised by the Regional Superintendent in charge of the Northern region. First, perhaps there are a larger number of teachers trained outside the province who locate in the North, rather than in central and southern Saskatchewan. Second,

perhaps the numbers of these teachers are similar, but there are more supports in place and closer supervision of these individuals in the other regions where the schools are not so remote, so the differences in training are less noticeable. Either way, specialized professional development for teachers in these situations appears to be warranted. It is recognized that if a teacher's personal safety is involved, as presented as one issue in the findings, professional development is not the priority. However, one solution presented by the Superintendent was to ensure that teachers who are being considered for positions in areas where safety is a concern are provided with a realistic picture before they commit to a contract. A mentorship, or spending time with teachers who are currently working in these communities, would be useful professional development.

Prior to my interview with the Northern Regional Superintendent, I had been grouping rural and remote teachers together as a synonymous group—just as Statistics Canada and much of the literature does. However, as the interview progressed it became apparent that while "small rural schools often have more in common with similar schools in other yet quite diverse places than they do with larger schools in their own immediate environment" (Mulcahy, 2006), remote Northern Saskatchewan school teachers have significant additional challenges that warrant consideration for additional and unique professional development needs. Rural and remote compared to "just rural" begins to take on new meaning and requires further attention.

Professional Development Analysis

"Reality is not only blue or green, it is multicolored, a rainbow."
(Freire, 1997, p. 48)

This section reviews the participants' perceptions of attitudes towards professional development, followed by an expression of the needs that are evident in the rural and remote

setting that may not be as important in an urban setting. Current Ministry practices in professional development are examined, as well as individual school division capacity. Finally, one possible explanation of why professional development occurs in its current fashion is put forward.

The variety of answers received from participants about professional development may speak to a variety of factors for each participant: current geographical location that is supervised, question interpretation, or to personal past professional development or educational experience, or a personal affinity towards professional development. "I've learned that the type of professional development that I provide is the kind I like" (CRS, p. 8). There wasn't contradiction between the participants, but each seemed to focus on a slightly different area.

While attitudes toward professional development may differ, needs certainly do differ. "There's a real different attitude out there towards professional development, I think, between rural and urban. Maybe it has to do with the size of school division and capacity" (CRS, p. 16). Smaller centres "really want these [Ministry] people to come" and the teachers in smaller centres "take it more seriously than the others do" (CRS, p. 17). Although the desire for professional development is considered by one participant to be the same, the need is seen as different, citing large class size as an issue to be explored rather than what a small school may see as a solution to dwindling enrolments. Likely with tongue-in-cheek, one participant suggests that while for urban centres it's a "number issue", in small rural schools, "we would have died to have 40 kids in a grade, because we never had that. We had 40 kids, but they were in four grades" (SRS, p. 21). And in many Saskatchewan towns, 40 students may well comprise half the population of a K-12 school, inevitably meaning that professional development needs are different than when that same number of students are all located in one classroom in a large urban centre.

When one considers the number of courses that rural school teachers must prepare for, professional development is essential. If teachers end up instructing across grade levels or across subject areas, they cannot be prepared for their work solely through prior university education. Universities demand that teacher-candidates specialize by age and then, if they choose to be high school teachers; that they further specialize by subject area. We know that "professional development helps teachers develop the content knowledge and skills they need to succeed in their classrooms" (Vrasidas & Glass, p. 2). When considering the working reality of many rural small school teachers, it is clear that professional development needs to go above and beyond the "typical" urban teacher. High school teachers are teaching non-majored subject areas. High school and elementary teachers are teaching ages they never anticipated. The ideal, anticipated work situations are very unlike what the teacher-candidates were prepared for through their University training. But once in the field, they are no longer teacher-candidates; they are working professionals with professional, student, personal and community expectations of what they should offer the learning community. In the first few years of employment, new teachers are still learners; yet, in many cases, they are considered experts with the same weighty decisions to make as an experienced teacher, but sometimes in relative isolation, potentially without any administrative or collegial support. They arrive at this praxis with all the expectations, but little formal preparation to address the diversity they encounter.

The professional development delivery from the Ministry, as identified by all three participants, has changed from a "direct-to-teacher" model to a "train-the-trainer" model. Despite the overall shift, because we are in a time of major curricular changes, the Ministry is delivering online workshops that are available to anyone in the educational field and is available both live and as a recorded feature to be viewed at one's convenience. This openness and

flexibility was identified as one way the Ministry is working towards equity across the province. All three participants felt that the key differences between rural and remote compared to urban settings, identified earlier, affect the professional development needs of those teachers. A train-the-trainer model is considered to be "extremely effective for reaching large audiences" (Poplin, 2003, p. 39).

Last year, a new Ministry initiative for professional development came in the form of one-hour satellite presentations put on by curriculum writers "where the teachers can communicate to the presenter" (SRS, p. 13) by phoning in during a question/answer period at the end of the session. These sessions were then posted within the Department website, so that recordings could be watched later. However, it seemed that accessing the material later through the Internet decreased the quality of the experience. Although there were some quality issues with some of the earlier attempts (both satellite and Internet), it is hoped that "they have fixed all those kinds of errors" (NRS, p. 30). The Ministry is going to continue with this initiative for the 2012-2013 school year.

If the workshops are being broadcast across the province, it is doubtful that there is any consideration being given to specific rural or remote small school issues in the planning phase. The accessibility issue is being recognized and considered, but the significance of teaching context continues to be lost. Holland (2005) notes that not only must professional development align closely with actual conditions in the classroom, but also "provide teachers with a way to directly apply what they learn to their teaching" (p. 2). Additionally, the opportunity of interaction between presenters and teachers through an asynchronous online platform has not been explored.

One of the reasons these presentations seem to be happening at this time is "just because we're in a curriculum renewal phase" (CRS, p. 9). This suggests that once this phase is over, the initiative may end. "One of the ideas behind amalgamating school divisions was to help put together the smaller school divisions so that they would build capacity.... and it's been moving on that continuum in the same way ever since" (CRS, p. 10). However, a web-based search of Saskatchewan school divisions' personnel clearly indicates that administrative staffing capacity, and therefore the amount of support available to classroom teachers in those divisions, is highly variable. Until this capacity is built, it is critical that the Ministry continue to provide the needed support. "Improving teachers' skills and knowledge is one of the most important investments of time and money that local, state, and national leaders make in education" (Holland, 2005).

There have been many changes to the educational system in the last ten years; and with change comes adjustment challenges. Many school divisions in the rural areas were vastly expanded geographically, but personnel remain small, in number, compared to urban divisions. "I don't know that there's a specific method we had to what decisions about professional development occur.... As it stands today, to the best of my knowledge, we don't have any criteria that dictates what should or should not happen" (SRS, p.17).

In the context of this apparent ambiguity, the current mandate of the Ministry seems to be to provide less, not more, professional development. However, there is recognition that in times of great change, such as the current experience with curriculum renewal, some support is required at a provincial level:

In these positions we used to go out and do workshops, and it would be like that when there were more school divisions and more regional offices; there were seven. ... We would go out and be almost like that third level service of a larger school division. So now there are only three regional offices. And we don't do that, like we say we don't do

workshops anymore, but we work with the curriculum consultants now to put on workshops just because we're in a curriculum renewal phase. (CRS, p.9)

When I first got to the Ministry, we weren't going out anymore. ... We've moved away from that a little bit now to understanding there's still a need to hear it right from the person who wrote the curriculum. (SRS, p. 18)

Capacity has increased somewhat within those school divisions that amalgamated to a significantly larger size. However, a lack of capacity within smaller school divisions does create a level of inequity for the teachers in those school divisions. Further, capacity in the rural divisions, while greater, still has not allowed for the hiring of specialists in all subject areas that are present in larger urban divisions. One stark example is that in two of the school divisions in the North, there are no superintendents—just the Director and classroom teachers. It is the expectation that the Director will attend all the "trainer" meetings, but they are called to so many meetings that they are unable to attend all of them. This illuminates the reality of capacity, or lack thereof, that in turn, may speak to the communication issues discussed in earlier sections that result in an unequal access to professional development.

Local context is important to assist rural teachers in helping their students to make meaning from new ideas. Hardre (2009) states that although teachers may attend a workshop and love the ideas, the challenge of making the idea meaningful within a local context, with no one to assist, may end up failing and result in the innovation being set aside. Framing ideas in a rural context and providing support once the teacher has returned to his/her home school are potential methods to improve the effectiveness of professional development opportunities that are provided outside of the teacher's geographical area (p. 4).

The majority of graduate degrees are garnered by teachers who live in or near urban centres. Potentially, this situation exists because the majority of people who hold upper level

administrative positions are more likely to hold graduate degrees, and therefore a bias exists, at the decision-making level, surrounding the choices and delivery of professional development offerings that are provided by the Ministry and possibly by school divisions. Additionally, it may indicate a lack of global awareness as to what supports are required by small school and Northern classroom teachers.

The Ministry has changed the model for delivery of professional development, as noted earlier. Although the Ministry expected that before these changes occurred, school divisions would have increased professional development capacity, it is recognized that this has not happened at an even rate across the province, leaving some school divisions with a lesser capacity to provide professional development to their teachers compared to other school divisions.

Asynchronous Analysis

"We are moving into a world without walls, where distance is no separation." (Russell, 1998, p. 28)

This section examines and assesses the general environment for asynchronous online professional development. The current issues that exist limiting the adoption and acceptance of asynchronous online professional development are highlighted, as well as key reasons for pursuing this line of professional development. Specifics about how this initiative could be pursued are addressed, as well as the benefits of this type of professional development.

The message from the Regional Superintendents was consistent. The time is now and the demand is here:

I probably, two or three years ago, would have said, "Ahhh, I'll just drive to Wadena." Now I'm more inclined to say, "I'll just stay right here. Let me watch it on here

[indicating the television in the room]." So I think change happens. It takes a long time to turn that ship around, but I think it's a great opportunity. But it [professional development] has to be good. It has to be good. (SRS, p. 29)

It's not just a perception. [Laughs] because we hear it quite clearly [laughs]. ... There's a large... wanting call, asking for more of it from rural areas. People are just saying – especially to the Ministry because we're so behind – and people in rural school divisions are saying, like come on already, just get with the plan, let's offer some things in different ways, let's have meetings in different ways, let's start working with this technology. And we are crazy behind... But there are a lot of people that currently work for the Ministry that are just barely comfortable with email and putting an attachment on. And if you ask them to go to a Wiki site to see something or you ask them to go to Blackboard, they're just not comfortable with that. (CRS, p. 21)

Technical issues remain problematic, especially in the Northern part of the province, because "the last I heard there were some communities that weren't hooked up because their IT guys are just way too busy" (NRS, p. 28). This resonates with work done by Vrasidas & Glass (2004) and the Alberta Teachers' Association (2006), who indicate that one of the barriers to effective participation is teachers' limited access to the Internet. Although there have been technology improvements in the eight years since Vrasidas & Glass published, evidently these barriers are still an issue in Northern Saskatchewan and parts of Alberta. The access issue "results in certain groups of teachers being disadvantaged, thus increasing the gap between the 'haves' and 'have-nots'" (Clark, 2000 as cited in Vrasidas & Glass, 2004, p. 5). There is a demonstrated need to develop capacity for quality delivery from within the Ministry, or other persons involved in professional development surrounding provincial curricula and initiatives, because we know the opportunity "has to be good" (SRS, p. 29) to be sustainable. Address these issues, and the supply should begin to meet the demand. Meet the demand with quality professional development opportunities, and you will create more effective demand.

There is no better time for the Ministry to consider offering support through what may be considered new means than during a curriculum renewal phase. It is during times of great change that teachers and students within the classroom are deeply affected and require the most support. Providing adequate quality support for those teachers is important to the quality of instruction that they will be able to offer:

I think there's too much coming down too fast and teachers are frustrated because they don't even have a chance to really get to know the document because they're not even part of that professional development. They're not internalising it. They're not able to go and ask the consultant questions about it. (NRS, p. 23)

There is need for more study, especially in the Northern areas of the province where the needs are unique and beyond those of small school rural teachers.

Although many of the benefits I believe asynchronous online professional development has to offer were not discussed at length (e.g., think time), one of the most critical aspects for small school teachers—networking—was a recurring theme with all participants. Additionally, flexibility of access, and continual access, were also raised by the participants, echoing McAllister's (2009) belief that busy adult learners require this flexibility. Current Saskatchewan Regional Superintendents, therefore, add their collective voice to the Alberta Teachers' Association (2006) and Russell, Kleiman, Carey and Douglas (2009), who note that, "First and foremost, online learning can be used to bridge distance and time" (p. 443).

Asynchronous distance education platforms such as Moodle (an open-source, community-based tool for learning) and Blackboard Learn (a for-profit learning management system) provide a way for developed course materials to be presented, on-line discussion forums to take place, assignments to be submitted, and links made available to enable individual learners to access all parts of the course experience at their own convenience. The discussion forums

allow postings to be reflected on and responded to by the whole class or small groups, depending upon the facilitator's choice.

B.J. Eib (2002), Associate Director for the Center for Excellence in Education at Indiana University, lists four potential benefits of including asynchronous online learning as part of a professional development plan: (a) flexibility of access, (b) "think time", (c) continual access to content, and, often, (d) an increased opportunity to interact with colleagues compared to face-to-face workshops (pp. 61-62). This underscores the value of asynchronous online professional development for some teachers, especially for those in rural and remote settings who require better access and opportunity to interact with colleagues.

Understanding how professional development is occurring, why it is occurring in the manner it is, and examining the role of learning through asynchronous online platforms are all important considerations when looking at possibilities for more effective ongoing professional development for teachers who work in isolated areas or isolating situations. Considering the context of the teachers who are participating in professional development will serve to enhance the experience for everyone involved. Providing effective professional development under asynchronous distance education platforms provides the materials and service when and where teachers require it, rather than when it happens to be available. The platforms allow for interaction between other professional staff as implementation takes place. Threaded discussions link comments about specific topic areas within online forums. These discussions provide the opportunity to develop a peer-based community of support, facilitating suggestions, tips, advice and sharing.

Rather than a traditional, one-shot approach to professional development, an alternate delivery model that is asynchronous and distance-based can provide opportunities for

connections between rural and remote teachers. Such connections can provide the opportunity for linkages for like-grade/like-subject-area colleagues in an ongoing manner, similar to what urban teachers experience face-to-face on a daily basis.

A historical perspective is useful in looking at where we have come from and thus providing some guidance as to where we may want to go. Learning from our mistakes is considered to be one of the strengths of a practical education. Consideration of the limited experience of current traditional methods, to include asynchronous distance professional development opportunities, could ultimately inform the documentation for future users of these platforms of the potential obstacles they may need to overcome in their online learning experience. Reviewing the strengths of asynchronous opportunities could ensure those elements are first and foremost when considering the design of the learning materials for various platforms.

Professional development informed by these considerations could enable participants to enhance a one-time professional development opportunity into a meaningful, contextually-based and ongoing experience, or possibly even utilize an on-line system exclusively. Eib (2002) stresses the importance of engaging in high quality, online professional development opportunities that offer "direct connection to authentic problems or collegial dialogue" (p. 62). Consideration of the benefits of closed—rather than open—communities, too, could be addressed. Falk and Drayton (2009) observed that participants perceived "safety" in a restricted versus open community to be a contributing factor in user willingness to participate (p. 11). School division or Ministry professional development could offer this type of security in a way that national or international services such as ruralteachers.com (Darling, 2012) cannot, potentially increasing teacher participation.

When it comes to the delivery of professional development, consideration should be given to the environment and context in which staff, in relative isolation, require such support. As shown by interview data collected and literature reviewed, rural teaching experience is significantly different from teaching experiences in large urban school settings. Mulcahy (2006) goes so far as to suggest that small rural schools probably have more in common in other diverse settings than they do with larger schools in their local setting. His world travel experiences indicate that "issues and concerns of rural communities and rural educators are very much the same world over" (pp. 20-21). One potential of asynchronous online professional development is to bring together these teachers—isolated by geography—into a virtual community of like-situation professionals, to provide insight and peer support.

Vrasidas and Glass (2004) provide a broad summary of professional development needs by saying:

Professional development has traditionally been offered from the top down. Ministries and departments of education in various states and countries decide what needs to be delivered to teachers, and persons at lower levels in the bureaucratic hierarchy are directed to deliver it. Contemporary approaches to professional development, on the other hand, strive to involve all stakeholders in the planning, development, presentation, and evaluation of professional development opportunities for teachers. Effective professional development must be coordinated with broader school improvement efforts rather than be delivered in isolation. And follow-up activities should be structured to ensure that professional development makes a difference. (p. 3)

Personnel from the Saskatchewan Ministry of Education appear to have taken a two-pronged approach to professional development. They have official department workshops using a "train-the-trainer" model. Additionally, they have an ad hoc approach delivery of one-hour satellite workshops that, ideally, are available to all interested Saskatchewan teachers. While

some technology is being utilized to increase access, Ministry personnel are well aware that more could be done; and, that as a province, we are not quite where we need to be.

In summary, asynchronous online professional development, if developed thoughtfully and with teacher input, could be useful to increase accessibility to rural and remote teachers, and to improve the efficacy of professional experiences overall. There are technical and cultural issues to overcome to help ensure success; however, the potential benefits outweigh these challenges.

Research Question Conclusions

This section summarizes the main conclusions arising from the primary research question, "What are the perceived challenges and potential benefits of offering distance asynchronous online professional development to teachers in rural and remote Saskatchewan?" again, according to the three key areas which have been used to structure the research throughout. This is followed by summary statements that address the challenges and benefits as identified by participants and found in the reviewed literature.

Current literature and participants are in agreement that significant differences exist in the experience of teaching in rural and remote areas compared to in an urban setting. Howley and Howley (2005) state, "the differences discussed here should not be seen as deficiencies, even though they can pose challenges" (p. 2). However, these differences, as cited by participants, ultimately affect the entire professional life of a teacher.

These differences—particularly, the effect the differences have on professional development needs—have not been addressed to date; nor have they been addressed in

professional pre-service training. Failure to address these needs means that teachers in rural and remote areas are disadvantaged. When teachers in rural and remote areas are disadvantaged, so too are their students. Addressing these needs would require universities to examine their programming and the Ministry of Education and school divisions to consider these differences when designing and delivering professional development opportunities.

Over the past decade, there have been some major organizational changes affecting the structure of the educational system in Saskatchewan, notably the amalgamation of school divisions. One of the hopes for this amalgamation was that capacity would be built for professional development at a more local level. However, this capacity did not, increase evenly across the province, leaving some divisions with less ability than previously to provide professional development to their teachers. This lack of support is experienced more deeply in rural and remote Saskatchewan, where teachers have been trained by an urban-friendly model to work in a non-urban setting, and often teaching outside their subject-area or age-area of expertise.

Everything we know about professional development—that it should be long-term, ongoing, contextual, just-in-time and collaborative—is not the current experience for most rural and remote teachers. Lack of like-subject and like-age colleagues makes it difficult for rural and remote teachers to build meaning, and find support, following one-shot professional development events that are based on the traditional approach.

New technology and new platforms provide new possibilities. Now that connections are possible across distances and can be ongoing, asynchronous online professional development

should be explored as one possible answer to unique rural and remote professional development issues.

Well-designed asynchronous online professional development offers solutions to a multitude of issues that were identified in the earlier sections. New technologies offer networking possibilities that simply did not exist a decade ago. Technology can connect in real-time (videoconferencing and chat) or without barriers to time (asynchronous discussion forums) to link professionals with similar interests—such as a subject area, or situations, such as teaching a triple grade. If there is available technology and support, access issues are diminished. However, it is essential that technological access is not assumed, especially in Northern areas.

Lastly, recognition of the need for a cultural shift is important. Support is needed for teachers, without the technological expertise, wanting to make the shift. Leadership, too, is essential. Organizations that provide professional development must help and guide adoption of new delivery methods.

The potential benefits of offering quality asynchronous online professional development opportunities to rural and remote teachers include the capacity to provide networking possibilities to otherwise isolated individuals in subject or grade appropriate areas on a sustained basis. King (2002) reminds us that "substantial dialogue and a rich learning experience can be created in online classrooms" (p. 236). This type of professional development has the capacity to offer just-in-time support, as well as the flexibility to make it possible for any teacher to participate regardless of personal or professional schedule restrictions or location.

The key challenges that must be overcome to provide asynchronous online professional development are both cultural and physical challenges. Culturally, in some cases teachers are

not aware of the potential and therefore perhaps reluctant to participate. In other cases, the personnel that are currently offering province-wide professional development are not trained as distance educators and are not aware of the platform capacity to allow for quality professional development to be delivered effectively. Physically, in some cases technology continues to be problematic, both from a delivering and a receiving perspective.

There are enough differences in the teaching experiences and needs of small school, rural and remote teachers to warrant further study about the impact of different, specialized professional development opportunities—from the Ministry or from the teachers' own school division—surrounding new curricula and initiatives. Further, planning for professional development specific to teachers new to Saskatchewan—via either national or international teacher certificate transfers—could support and potentially increase adoption of Saskatchewan curricula in the classroom, specifically in Northern areas of the province. Under the current system, it appears that neither of these needs is being met.

Although there is support for the concept of increasing the use of technology towards better access to professional development, there are concerns at three levels: (a) the technology itself is not available in all areas, especially for remote Northern communities; (b) there continues to be some resistance, both by providers and end-users, to technology as an acceptable, tool to use and embrace; and, (c) for interested and motivated participants, there remains a need for further training and exposure to the full capabilities of asynchronous online platforms.

Next Steps: Limitations and Possibilities

"Creativity involves several different processes that wind through each other. The first is generating new ideas, imagining different possibilities, considering alternative options. (Robinson, 2009, p. 72)

Limitations of research

First, it is important to remember that an entire provincial educational system was considered with respect to the benefits and limitations of offering asynchronous online professional development. From the interview participants and the researcher herself, this study has benefitted from over 75 years of professional experience in the educational field within the province of Saskatchewan. Insight has been provided into small-school, rural, remote and urban perspectives. However, at the end of the day only four educators were really "involved". So, although many other colleagues' concerns were expressed, all were presented through one of four lenses, impacting the scope and worldview of the data and the analysis.

Secondly, the data was analyzed by a professional educator who is reasonably technologically savvy and has hungered for this type of professional development during her own career. Only a true, self-declared technophobe can understand the apprehension and paralyzing fear that new technology presents. As our students, borne of the technology and information age, drag their parents, teachers, administrators, and the entire Ministry of Education forward with them, we must be respectful of the impacts of this kind of change. It will take time and encouragement, for all to embrace, rather than disregard, these new applications of technology. It is not a replacement for—but rather a complement to, and an enhancement of—the personal relationships and human interaction we all value and desire in the educational field.

Thirdly, whenever one is researching or reviewing areas of technology, it must be recognized that the technology itself is a continually moving target. The most current research is often not found in published journals because of the length of time from submission to publication. However, journals that are not peer-reviewed may be seen to lack credibility. Websites can be constructed by anyone, and those that are not provincially- or nationally-associated may or may not be ideal data sources. Yet, to disregard this information limits the scope of the ever-expanding field.

Possibilities for refinement

Spanish artist Salvador Dalí once said, "Have no fear of perfection—you'll never reach it." Silverman (2010) cautions that "being a perfectionist sounds like a nice identity" but cites Becker's 1986 work that suggests that in the end, you need to "get it out the door" (p. 359). These quotes prompted reflection on three aspects of the research process: the research design, writing up the research, and the actual submission of the written work.

Interviewing the three Regional Superintendents of Curriculum and Instruction provided a thorough overview of the kind of professional development currently being provided by the Ministry of Education surrounding provincial curricula and Ministry initiatives. All Regional Superintendents were knowledgeable and willing to share not only their positional knowledge, but also insight into their own experiences as educators.

To more deeply understand the specifics of professional development opportunities available to Saskatchewan teachers, however, a discussion at the school division level is warranted. The Ministry is currently not providing professional development differently to teachers based on context or needs. Do individual school divisions make that distinction? Or do

they fall into the one-size-fits-all norm for teacher professional development, delivering the same professional development opportunities to teachers regardless of context or need? Most school divisions have Superintendents of Curriculum and Instruction. Interviewing or surveying the people in these positions would provide more detailed information about the professional development that is happening at the school division level. Additionally, to increase understanding from a demand or end-user perspective, Saskatchewan classroom teachers should be provided with the opportunity to have an effective voice in what they are seeking from professional development, and the type of delivery that will best meet their needs.

From a literature review and a writing perspective, when is enough, enough? Because of the dynamic capacity of search engines and the Internet itself, the literature identified changed on a daily basis. As I read more, I learned more. Thus I developed more questions, which led to more research; and more literature to review and consider. The ultimate conclusion I came to is that there is more need—especially from a Saskatchewan, but also from a broader Canadian perspective—to examine the implications of the differences of realities of teaching in rural and/or remote locations compared to teaching in urban settings, for professional development purposes but in other areas, as well.

Finally, submitting one's writing for review is the most vulnerable step in the process. To provide written text for scrutiny and feedback requires openness to critique and a willingness to make changes. Although there are undoubtedly sentences that could be reworked for clarity, and sections that could be arranged differently, the document faithfully tells the participants' and researcher's story.

Implications

The opportunity exists to add to the research of Wallin (2009) in developing a deeper understanding of the differences between the experiences of small-school teachers and their more urban-centred colleagues, as well as to examine needs that are more specific to remote Northern teaching experiences. To connect those understandings to what unique professional development needs exist, as well as how to meet those needs, moves us forward—not only as a province, but also as part of a global community. This may include looking more deeply at the work of Dede, Katelhut, Whitehorse, Breit and McCloskey (2009) to examine the quality of online teacher professional development relative to teachers' busy schedules, opportunities for reflection, and providing just-in-time assistance.

Beyond the educational field, it is possible to see connections to the broader rural community of professionals. Whenever I think of issues in rural Saskatchewan, education and healthcare immediately spring to mind. However, any professional—lawyers, engineers, early childhood workers, doctors, etc.—values professional connection with others who are in like situations. Connecting passionate individuals who exist in professional isolation potentially extends the implications of the findings of this thesis to well beyond the initial case study parameters.

Recommendations for further research

An understanding of how school divisions in the province of Saskatchewan, particularly those outside the urban centres of Saskatoon and Regina, deal with the needs of small school teachers compared to large school teachers should be examined. Further, the potential of connecting teachers in small schools across school division borders should be explored. Lastly,

specific professional development for teachers in the Northern part of the province should be examined with a focus on how improving teacher professional development and support may positively impact disadvantaged students in that area.

While the impact of geographical and therefore educational context for both administrators and students seems to be well documented, there is an apparent dearth of literature on the impact for practicing teachers—in spite of the research that indicates that teachers have the largest impact on student achievement. Now is an opportune time to take a serious look at how we support teachers in small rural and remote schools.

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- Yin, Robert K. (2009). *Case Study Research: Design and Methods 4th Edition*. Thousand Oaks, CA: SAGE Publications.

Additional Resources

In addition to the references, the author utilized the following resource in the preparation of this thesis:

American Psychological Association. (2010). *Concise Rules of APA Style Sixth Edition*. Washington, DC: American Psychological Association.

Appendix A: Invitation and Consent to Participate

You are invited to participate in a research project entitled *Professional Development for Teachers in Rural and Remote Saskatchewan: Making a Case for Asynchronous Distance Professional Development*. Please read this form carefully, and feel free to ask questions you might have.

Researcher(s): Janice Cruise, MEd candidate, Department of Educational Foundations; supervised by Dr. Margaret Kovach

Purpose and Procedure: This research seeks to identify the challenges and benefits of offering asynchronous online professional development to teachers in rural and remote areas in the province of Saskatchewan in the interest of improving professional experiences. Employing a qualitative research methodology, the researcher will interview the three Saskatchewan Regional Superintendents of Curriculum and Instruction..

This research seeks insight into the following area: a) the differences in circumstances of rural or remote teaching experiences compared to that in an urban or larger school setting; b) the role of distance professional development in Saskatchewan with emphasis on the extent to which these offerings address the specific and unique needs of teachers in rural and remote locations; and c) insight into how asynchronous online professional development can be an effective means to addressing some of the unique professional development challenges of teachers in rural and remote Saskatchewan including accessibility to like-subject and like-age educators and high quality professional development opportunities.

This study has a qualitative research design, using case study methodology and semi-structured interviews, all within a transformative perspective.

Sampling includes all currently employed Regional Superintendents of Curriculum and Instruction in the Province of Saskatchewan. These individuals will be invited to be interviewed and asked to respond to questions that will investigate my research interests (see Appendix B). The interviews will be recorded to ensure accuracy and transcribed. Transcriptions of the interviews will be provided to the interviewee for revisions, additions, and deletions prior to analysis to ensure the interview transcript accurately reflects the individual's opinions.

Potential Benefits: The potential benefits of participating will be the broadening of understanding of professional development for rural and remote teachers as well as contributing to the database of asynchronous online professional development as an option for teachers in rural and remote areas. As communication and interaction can further personal reflection, it is hoped that the surveys will provide an opportunity for busy professionals to further consider options and opportunities in their current practices as professional development deliverers.

Potential Risks: Due to the nature of the small group of individuals employed as Regional Superintendents of Curriculum and Instruction in the Province of Saskatchewan, their individual opinions may be identifiable.

Storage of Data: Dr. Margaret Kovach will keep the data for five years after completion of the Masters program for the purpose of scholarly articles. The Regional Offices will be notified should any further publications be accepted for publication. Upon expiration of that time, the data will be destroyed.

Confidentiality: Participant confidentiality will be protected by ensuring that identifying information will be removed from the data. Participants will be notified, as indicated above, as to the limits of their anonymity in this study given that the researcher will know who has participated, and because there are limited numbers of Regional Superintendents of Curriculum and Instruction and these individuals are well known within the Saskatchewan educational community. After the interview, and prior to the data being included in the final thesis, the participant will be given the opportunity to review the transcript and to add, alter, or delete information from the transcripts. The thesis will include summarized results and direct quotations; however, information which could personally identify the participant will be removed.

Right to Withdraw: Your participation is voluntary, and you can answer only those questions that you are comfortable with. There is no guarantee that you will personally benefit from your involvement. The information that is shared will be held in strict confidence and discussed only with the research team. A participant may withdraw from the research project for any reason, without penalty of any sort. If a participant withdraws from the research project at any time, any data that he or she has contributed will be destroyed at his or her request. **Your right to withdraw from the study will apply until the data has been pooled. After this, it is possible that some form of research dissemination will have occurred and it may not be possible to withdraw your data.**

Questions: If you have any questions concerning the research project, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided above if you have other questions. This research project has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). **Out of town participants may call collect.**

Follow-Up or Debriefing: Interested participants will be provided with an electronic copy of the final thesis upon request.

Consent to Participate:

Written Consent

I have read and understood the description provided; I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project, understanding that I may withdraw my consent at any time. A copy of this Consent Form has been given to me for my records.

Because you have been selected from a small group of people, all of whom are known to each other, it is possible that you may be identifiable to other people on the basis of what you have said

Please choose one of the following options:

- I would prefer to have my own name used in the thesis for any quotations.
- I would prefer to have a pseudonym used in the thesis for any quotations.

(Name of Participant)

(Date)

(Signature of Participant)

(Signature of Researcher)

Researcher Contact Information:

Janice Cruise
Department of Educational Foundations
College of Education
University of Saskatchewan
28 Campus Drive
Saskatoon, SK S7N 0X1

Research Supervisor Contact Information:

Dr. Margaret Kovach, Supervisor
Department of Educational Foundations
College of Education
University of Saskatchewan
28 Campus Drive
Saskatoon, SK S7N 0X1

Appendix B: Semi-Structured Interview Questions

Introduction: Understanding Perspective

1. Could you please start by stating any personal identifying features that you wish to share, such as name, gender, home town, etc.?
2. How long have you worked within the field of education? And how long in Saskatchewan?
3. What is your own professional background in teaching and administration?
4. What is your background in professional development?

a) Urban and Rural

1. Do you see any broad fundamental differences between teaching in an urban setting versus a rural setting?
2. What do you see as the potential benefits of the educational experience of teachers in a larger school setting?
3. What do you see as the potential benefits of the educational experience of teachers in a smaller (<100 student K-12) setting?

b) Professional Development

1. When preparing professional development opportunities for teachers, do you have different considerations that you keep in mind?
2. How is professional development used to support teachers prior to and during implementation of new curricula and/or initiatives of the Ministry of Education?
3. What factors influence decisions about what professional development is required for new curricula and/or initiatives?
4. Do you see a different need or desire for professional development between teachers in rural and urban areas?
5. What are the benefits of face-to-face professional development?

6. What are the limitations of face-to-face professional development?
7. What other insight are you able to offer about professional development delivery within the province?

c) Asynchronous Online Professional Development

1. What do you perceive as the current limitations towards offering asynchronous distance professional development for teachers?
2. What are the benefits to asynchronous online professional development?
3. What are the limitations of asynchronous online professional development?
4. Given resource restrictions that always exist in educational settings, what reasons exist that asynchronous distance educational opportunities should not be pursued?
5. What are some elements that would need to be present or changed to make asynchronous online professional development more accessible or acceptable to teachers?

Appendix C: Transcript Release Form



TRANSCRIPT RELEASE FORM

Title of Study: Professional Development for Teachers in Rural and Remote Saskatchewan:
Making a Case for Asynchronous Distance Professional Development.

I, _____, have reviewed the complete transcript of my personal interview in this study, and have been provided with the opportunity to add, alter, and delete information from the transcript as appropriate. I acknowledge that the transcript accurately reflects what I said in my personal interview with Janice Cruise. I hereby authorize the release of this transcript to Janice Cruise to be used in the manner described in the Consent Form. I have received a copy of this Data/Transcript Release Form for my own records.

Name of Participant

Date

Signature of Participant

Signature of Researcher