ATHABASCA UNIVERSITY

K-12 SASKATCHEWAN DISTANCE EDUCATION: DIGGING DEEPER INTO 21ST CENTURY CLASSROOMS DURING A PANDEMIC

BY

KELSEY D. SHIELDS

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Approval of Dissertation

The undersigned certify that they have read the dissertation entitled

K-12 SASKATCHEWAN DISTANCE EDUCATION: DIGGING DEEPER INTO 21ST CENTURY CLASSROOMS DURING A PANDEMIC

Submitted by:

Kelsey Shields

In partial fulfillment of the requirements for the degree of

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The examination committee certifies that the dissertation
and the oral examination is approved

Supervisor:
Dr. Connie Blomgren
Athabasca University

Committee Members:
Dr. Marti Cleveland-Innes
Athabasca University

Dr. Bob Heller
Athabasca University

External Examiner:
Dr. Norman Vaughan
Mount Royal University

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Dedication

This work is dedicated to all the teachers on the front lines of Saskatchewan classrooms during the COVID-19 pandemic, and beyond. Your dedication and commitment to the students of Saskatchewan is remarkable and admirable. The work you are doing does not go unnoticed during such a challenging and ever-changing time in education.

Acknowledgement

My journey through the doctoral process would not have been successful without the support and encouragement of many others. Being able to acknowledge those that have been a part of my journey is imperative. First, I would like to thank the Saskatchewan teachers who took time out of their busy day to participate in my study. Your time is extremely valuable so taking time to share your ideas and thoughts with me was very much appreciated. Education is in a very challenging time and by sharing your insightful views you have helped to build a path towards educational opportunities of the future. Your commitment to education is admirable and hard to describe to those outside the field of education. Keep leading the way for your students and fellow educators.

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When we arrived in Edmonton together as Cohort 9 I walked into a room of dedicated students looking to better themselves and tackle the challenge as individuals. We left that orientation weekend as a Cohort that was ready to tackle the challenge as a group of friends. Whether it was an email, a text, or a video chat the support was always there. I look forward to keeping in touch as lifelong friendships were built. Thank you Cohort 9!

Thank you to my friends and co-workers who were some of my biggest cheerleaders. There were many times that you would remind me to put one foot in front of the other, even though there were times where I felt like I had two left feet! Walking alongside such wonderful and dedicated professionals inspires me every day to keep fighting the good fight. I'm proud to have you as co-workers and I couldn't ask for a greater group of people to be a part of my professional journey. Not only are you my co-workers but you are truly my friends.

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Abstract

Distance education has the ability to augment Kindergarten-Grade 12 (K-12) education in Saskatchewan by reducing the barriers and challenges currently presented in public education, especially during the Corona Virus Disease of 2019 (COVID-19) global pandemic. The purpose of this study was to explore the educational opportunities faced by public school K-12 Saskatchewan learners during the COVID-19 pandemic. Within this exploratory qualitative study, insider action research was used to gather experiences and perceptions of 16 K-12 Saskatchewan public school educators through email interviews. Participants were recruited through social media and invitation through the 18 Saskatchewan public school divisions. An email interview was shared including 10 open-ended questions developed from the researcher's Conceptual Framework for Distance Education in K-12 Saskatchewan. Participant responses, along with field notes, were coded using NVivo software, focusing on the themes of the Conceptual Framework. The researcher completed a Force Field Analysis (FFA) to identify factors or forces that influenced, drove, or impeded change for K-12 distance education in Saskatchewan during the COVID-19 pandemic. As a result of these findings, Action Plan items were identified to improve K-12 distance education in Saskatchewan: 1) Decrease the Digital Divide; 2) Provide adequate and relevant professional learning for educators; 3) Increase post-secondary experiences for new educators; 4) Educate educational leaders about the complex world of online learning; and 5) Provide parents with more opportunities to learn more about distance education. The Community of Inquiry (CoI) and the Technological, Pedagogical, and Content Knowledge (TPACK) framework were used to support these recommendations. These recommendations lay groundwork for future insider action research. This research will contribute

to what is currently a relatively small research base in K-12 distance education applications and will provide direction for change in the field of K-12 distance education.

Keywords: Distance Education, Kindergarten-Grade 12 (K-12), Saskatchewan, Corona Virus Disease (COVID-19), Exploratory Qualitative Study, Insider Action Research, Email Interviews, Conceptual Framework for Distance Education in K-12 Saskatchewan, Community of Inquiry (CoI), Technological, Pedagogical, and Content Knowledge (TPACK), Force Field Analysis (FFA), Action Plan

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List of Symbols or Abbreviations

ADLC – Alberta Distance Learning Centre

CK – Content Knowledge

CoI – Community of Inquiry

COP – Communities of Practice

COVID-19 – Corona Virus Disease 2019

ESSP – Education Sector Strategic Plan

FFA – Force Field Analysis

ISTE – International Society for Technology in Education

K-12 – Kindergarten – Grade 12

MOOC – Massive Open Online Course

OER – Open Educational Resources

PCK – Pedagogical Content Knowledge

PK – Pedagogical Knowledge

PDK – Pedagogical Content Knowledge

PLN – Professional Learning Network

RPT – Response Planning Team

SPDU – Saskatchewan Professional Development Unit

SPTRB – Saskatchewan Professional Teachers Regulatory Board

SSBA – Saskatchewan School Boards Association

STF – Saskatchewan Teachers' Federation

TCK – Technological Content Knowledge

TK – Technological Knowledge

TPACK – Technological, Pedagogy, and Content Knowledge

TPK – Technological Pedagogical Knowledge

TRC - Truth and Reconciliation Commission of Canada

Chapter 1: Introduction

Introduction

Does the education system of the 21st century emulate the needs of 21st century learners? Tom Hierck (2019, 0:45) poses a systemic dilemma: "We've got 21st century students being taught by 20th century adults using 19th century curriculum on an 18th century calendar." This quote leads to an important question…are we designing 21st century schools for students' futures or are we designing 21st century schools for parents' pasts (Hierck, 2019, 0:32)? In a world where globalization, technology-integration, and complexity continue to rise, technology literacy and usage competencies such as creativity and innovation; communication and collaboration; critical thinking, problem solving, and decision making; digital citizenship; and technology operations and concepts (Larson & Miller, 2011) become critical. Are these competencies considered when education is at the forefront of discussion? Are we designing an education system that is comfortable for parents while not considering today's students carry different technological experiences? Does the 21st century classroom consider distance education to be an integral part of providing learning opportunities for students?

Since the inception of education, basic skills such as reading, writing, and mathematics have been emphasized (Larson & Miller, 2011). While there is no doubt these skills are still important, 21st century skills must also be a focus. As described by Larson & Miller, 21st century skills include: creativity, perseverance, problem solving, as well as performing well as a team. Distance education has grown to be a valuable avenue for educators and school divisions to utilize in developing 21st century skills. Distance education can bring in an element of flexibility to the learning process by using technology and interdisciplinary approaches (Mahlangu, 2018). Although, the current underpinnings of distance education are heavily tied to technology, its

history dates back to correspondence (Bozkurt, 2019; Gunes & Altintas, 2012; Taylor, 2001). Distance education has the ability to adapt to trends in technology (Casey, 2008). However, is distance education being used to the maximum of its ability for Saskatchewan students today?

Coronavirus disease 2019 (COVID-19), a virus that causes respiratory illness and can be fatal (Hill, 2020), has shifted the educational landscape during a worldwide pandemic. The impact of COVID-19 has had a rapid and profound effect on public education (The Alberta Teachers' Association, 2020). How has distance education been used to embrace the challenges COVID-19 has demonstrated? Through the use of a critical pragmatic approach, this study, rooted in social constructionism, explored the current state of distance education in Saskatchewan using an exploratory qualitative approach and insider action research. The perceptions of Kindergarten–Grade 12 (K-12) Saskatchewan public school educators were used to contribute towards developing an action plan to enhance the distance education system of public school divisions under the jurisdiction of the Ministry of Education. Educator perception provided an "insider" perspective and the voice of professionals offered valuable insight into the current state of distance education in Saskatchewan.

The World Health Organization declared COVID-19 a pandemic on March 11, 2020 (Chattu et al., 2020).The rapidly evolving global challenge that COVID-19 has brought upon the world threw Saskatchewan into an emergency education plan. COVID-19 poses a serious health threat to humans, as well as a disruption to society on many levels (Chattu et al., 2020), education being one of those levels. The need for the education sector in Saskatchewan to mitigate and prevent the spread of the virus became apparent quickly as the Government of Saskatchewan had to develop an education plan within a matter of days. Face-to-face learning activities were suspended indefinitely in Saskatchewan effective March 20, 2020 (Government

of Saskatchewan, 2020b). The Government of Saskatchewan confirmed on May 7, 2020, that classes would not resume until at least the following school year (September, 2020) (Government of Saskatchewan, 2020a).

In response to the pandemic, the Saskatchewan Ministry of Education developed a Response Planning Team (RPT) to work through various scenarios and recommendations made by Saskatchewan's Chief Medical Health Officer. As recommended by the RPT, supplemental learning opportunities were provided to K-12 students throughout Saskatchewan (Government of Saskatchewan, 2020a). Supplemental learning consisted of non-mandatory curriculum programming where students could choose to continue learning through distance education and other means necessary (Government of Saskatchewan, 2020b). As COVID-19 continued to pose a health threat throughout Saskatchewan, as well as globally, this version of the virus is referred to as the first wave. It was possible that those who became immune to the first version of the virus (first wave), would not be immune to the next version which could result in what is referred to as the second wave (Preskorn, 2020).

The current state of distance education in Saskatchewan is being affected by a COVID-19 global pandemic, one of which is new to the world. Because of this lack of experience with COVID-19, there is a lack of peer-reviewed literature. To help fully reflect the current situation in distance education due to COVID-19, grey literature becomes imperative. Grey literature includes unpublished studies and studies published outside of available journals that do not employ peer review (Conn et al., 2003). McKenzie (2021) notes that a benefit of grey literature for research is that it can be more current than literature in scholarly journals. She describes how grey literature doesn't go through a peer-review process therefore validity can vary making it very important for a researcher to be critical of the source. Throughout my use of grey literature,

I am cognisant to identify the organization that is publishing the information. Government agencies, universities, and newspapers can be valuable sources of real time information that can create an accurate depiction of the happenings within Saskatchewan's distance education during COVID-19.

Distance education in the field of K-12 is a mode of educational offering that can be used to serve populations of learners where traditional brick-and-mortar schools cannot provide learning opportunities, especially to those learners living in rural areas (Cavanaugh et al., 2004). Distance education is less a philosophy and more a method of education where technology is a critical element of its success (Bates, 2008). The pragmatic nature of distance education transforms and adapts to changing paradigms (Bozkurt, 2019). Researchers have applied various terms for distance education, including but not limited too distance learning, flexible education, open learning, experiential learning, and independent learning (Demiray & Isman, 2003). Although terms related to distance education can be used interchangeably, for the purpose of this study distance education is defined by, "planned and organized teaching and learning in which learners are separated from teachers or facilitators in time and space" (Bozkurt, 2019, p. 272).

Changes in technology and educational theory have influenced changes in distance education over time. These changes are often discussed in terms of generations as distance education has evolved over time (Aoki, 2012; Bozkurt, 2019). Both Taylor (2001) and Bozkurt (2019) describe how distance education has evolved through five generations. First, they describe how distance education evolved from print technology/correspondence model; second, a multi-media model; third, a telecommunications/telelearning model; fourth, online delivery via the Internet/flexible learning model; and the fifth and current generation capitalizes on various features of the Internet/intelligent flexible learning model. The characteristics of each generation

are relevant to the quality of teaching and learning in each generation (Taylor, 2001). This qualitative study demonstrates how, during a pandemic, distance education can provide K-12 learners in Saskatchewan with opportunities to capitalize on the fifth generation of distance education and have flexible schedules, enriched learning, progression at their own pace, and experiences of learning activities that suit their needs.

During this study, the action plan recommendations were examined and supported with the Community of Inquiry (CoI) theoretical framework, as well as the Technology, Pedagogy, and Content Knowledge (TPACK) model. The CoI is a widely used theoretical framework for constructivist e-learning design and can be used by teachers and by researchers (Anderson, 2016). CoI originally assumed deep learning occurred as three core elements interacted with each other: social presence, cognitive presence, and teaching presence (Garrison et al., 1999, 2010; Garrison & Arbaugh, 2007). As research grew in the area of the CoI theoretical framework, Cleveland-Innes and Campbell (2012) argued that emotional presence was absent from the original model. Emotional presence needs also to be considered, as emotional expression was considered within social presence in the CoI theoretical framework. However, emotional presence goes beyond to include motivational and affective elements (Majeski et al., 2018). Because K-12 students are still developing emotionally, the potential component of emotional presence becomes significant. CoI helps to construct and define an effective distance education teaching model (Anderson, 2017; Wei et al., 2020) that was useful in this study to identify strengths and weaknesses of the current state of Saskatchewan distance education.

Koehler and Mishra (2009) describe how the TPACK model considers how teachers integrate technology into their teaching. The inclusion of technology into pedagogy complicates the art of teaching. In a paper written by Koehler and Mishra, they note that many teachers

earned their degrees at a time when technology was at a different development stage than what can be found in today's classrooms. They also describe how good teaching with technology includes content, pedagogy, and technology which form the core of TPACK, plus the interrelationships between them. The paper also identifies the importance of the three components of TPACK, but equally important are the interactions of the components. It is imperative that teachers develop an integrated knowledge of the TPACK model in learning environments of the 21st century (Joo et al., 2018).

Teachers can take control of their professional practice by becoming better informed by researching their practice with the intention of developing and improving oneself (Hauge, 2021). Self-study, a form of action research, is the study of oneself and one's practice with a goal to improve (Hauge, 2021). As Hauge describes, self-study is not only important to me, as the researcher, but it is also significant to create meaning and understanding for others in education. This study reflects research that goes beyond myself and my positionality, and is valuable to the education community as a whole (Loughran, 2007). Ultimately, improving my understanding of my own practice and improving upon this is a goal of this research.

In research, the positionality of the researcher is pertinent (Parsons, 2008). Positionality and biases help to shape the research process and gain insight as to how to approach various parts of the research (Bourke, 2014) by influencing how a researcher approaches, designs, interprets, and uses the research (Breault, 2017). Positionality also sets the stage for reflection and creates opportunities for the researcher to position themselves within the research resulting in subjectivity (St. Louis & Barton, 2002). My experiences in K-12 education ultimately led to my interest to learn more about distance education in Saskatchewan. My positionality is included throughout this study to provide real-life connection and a voice for educators.

Researchers must strive to remain objective, and be mindful of subjectivity (Bourke, 2014). The space where objectivism and subjectivity meet is represented with positionality (Bourke, 2014). As described in a commentary by Deggs and Hernandez (2018), no data in itself is neutral as all data is interpreted by the researcher. They note how positionality allows the researcher to manage the impact of their critical thinking skills and be reflective of the data while making meaning of the data. They also describe how this allows the researcher to be aware of their positionality and enables purposeful, in-depth, reflective engagement that strengthens accuracy of triangulation of data sources improving validity and reliability. This facet of self-study refers to the intentional and systematic examination of practice to improve education.

The next section will review the current state of education in Saskatchewan during a time of a global pandemic, more specifically the valuable experiences and barriers of such presented to learners and educators. It will also present the problem statement along with my positionality (personal reflection, lived reflection, and connection) to Saskatchewan public education. These perspectives will appear in 12 point GillSans Light font thus indicating my positionality within my research topic. The purpose of the study is summarized, and a conceptual framework presented to support and identify concepts and linkages within this study. This chapter concludes with the discussion of the central research question, along with four sub-questions that were used to guide the proposed study.

Saskatchewan – A Rural Province

Saskatchewan is one of Canada's three prairie provinces located in Western Canada. This landlocked province, also known as the Land of the Living Skies, is bordered by Alberta in the west, Manitoba in the east, the Northwest Territories in the north, and the American states of Montana and North Dakota in the south. Saskatchewan has a total land area (square km) of

588,243.54 (Statistics Canada, 2017). The beautiful expanse of Saskatchewan is highlighted by glowing red and orange comforting sunsets to the dancing northern lights. The strong agricultural economy, including crop production and livestock, dominate the province. Saskatchewan houses more than 40% of Canada's cultivated farmland (Government of Saskatchewan, n.d.d). It also lays claim to the world's largest potash reserve being responsible for 45 percent of the global potash supply and is home to all of Canada's operating potash mines (Government of Saskatchewan, n.d.f).

The spirit of Saskatchewan is also reflected in the culture and traditions of the First Nations and Metis that have inhabited the province for the past 11,000 years (Stonechild, n.d.). As described by the Office of the Treaty Commissioner (2020), the province of Saskatchewan is covered by six treaties including: Treaty 2, Treaty 4, Treaty 5, Treaty 6, Treaty 8, and Treaty 10. More specifically, these treaties are described as formal agreements between the Crown and First Nations outlining expectations and obligations. The Office of the Treaty Commissioner also describes how, as included in the treaties, the phrase "We are all treaty people" (para. 4), implies all peoples (indigenous and non-indigenous) are a part of the treaties and benefit from the wealth of the land. All people of Saskatchewan are treaty people and are working through reconciliation (the process of working together) to build a positive future for Saskatchewan.

As of the latest Statistics Canada (2017) 2016 Canada Census, the population of the province was 1,098,355, totaling a population density of 1.867 per square kilometer. Indicated in this 2016 Canada Census, most of this primarily Western European population lives in the southern half of the province with the largest ethnic origins being German, English, Scottish, Irish, and Ukranian. The province also has a growing First Nations and Metis population. The province of Saskatchewan is home to 70 First Nations who are part of the following five

linguistic groups: Cree, Dakota, Dene, Nakota, and Saulteaux (Government of Canada, 2020). As of the latest 2016 Census of population, the First Nations and Metis totalled 175,020 (Statistics Canada, 2019), an increase from 157,740 from the 2011 Canadian Census, where one in ten First Nations and Metis people in Canada lived in Saskatchewan (Statistics Canada, 2016). 38% of Saskatchewan's First Nations and Metis people reside in the province's three major centers of Saskatoon, Regina, and Prince Albert (Statistics Canada, 2016). It is estimated, with the high birthrates among First Nations and Metis, the population of Saskatchewan will be 35% First Nations and Metis by the year 2045 (World Population Review, 2021).

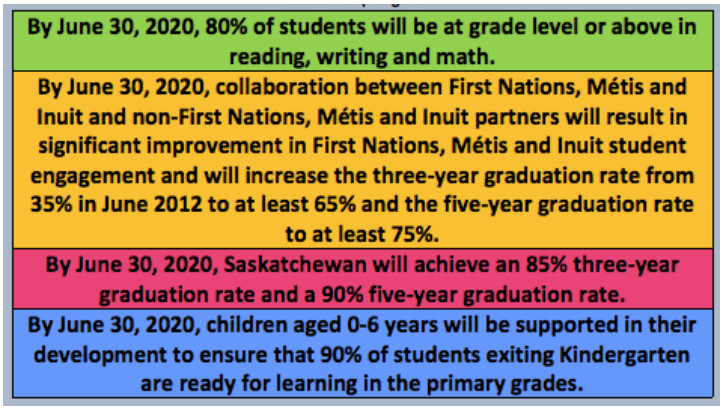
Saskatchewan houses a total of 778 K-12 schools and programs, of which 620 public schools/programs exist (Government of Saskatchewan, n.d.a). A provincial total of 184,472 K-12 students attend Saskatchewan schools (as of September 30, 2020), of which 138,988 (75%) students attend the public school system (Government of Saskatchewan, n.d.a). 43,710 (24%) of these students attend the separate (Catholic) school system (Government of Saskatchewan, n.d.a). Provisions for denominational rights included in the Canadian Constitution in 1867, along with the reaffirmation of the Saskatchewan Act of 1905 and the Education Act in 1978, establishes a separate Catholic school division in Saskatchewan (Fortosky, 2018). The Saskatchewan Act of 1905 also guarantees that Catholic elementary schools (Grades 1-8) are funded the same as public schools (Fortosky, 2018). The remaining 1,774 (1%) students attend Saskatchewan Francophone schools (Government of Saskatchewan, n.d.a). First Nations reserves assumed responsibility for educating their children in 1973 after the publication of the Indian Control of Indian Education document (Thompson, 2007). Today, First Nations continue to operate their own schools on reserve with funds provided by the Federal government (Thompson, 2007). According to Barbour, LaBonte, and Nagle (2020), 16 provincial schools in

13 school divisions, one independent school, and one First Nations authority have active distance education programs in Saskatchewan addressing the needs of approximately 8,500 distance learning students.

The Government of Saskatchewan's Ministry of Education oversees the school divisions in Saskatchewan. The mandate of the Ministry of Education is to advance the well-being of Saskatchewan people through leadership and support (Government of Saskatchewan, n.d.c). The Saskatchewan Ministry of Education produced the first ever province-wide plan known as the Education Sector Strategic Plan (ESSP) (Government of Saskatchewan, 2014) which outlines priorities and outcomes for Saskatchewan school divisions. Within this plan, released in 2014, four long-term outcomes are listed (Figure 1). These outcomes helped to drive the goals set by individual school divisions over the course of 2015-2020. Due to COVID-19 and the implementation of supplemental learning in March, 2020, the data to evaluate the goals at the end of the 2020 school year could not be collected.

Figure 1

Education Sector Strategic Plan Cycle 4 (2019-20) Long Term Outcomes (Government of Saskatchewan, 2019a)



The targets set for 2020 served as motivation for school divisions to focus efforts and work collaboratively (Saskatchewan Ministry of Education, 2019). Progress was made in advancing most of the goals, although the highest achievements were in reading levels and graduation rates (Saskatchewan Ministry of Education, 2019). Reading levels were a strong and valuable focus as reading levels often indicate success rates for students as they move through K-12 (Merrimack College, 2020). Grade three reading levels are considered an indicator to student future academic success and is tracked provincially using provincially developed benchmarks (Good Spirit School Division, 2019). During the 2018-2019 school year, 75% of grade three students in Saskatchewan were reading at grade level or above (Good Spirit School Division, 2019), 5% short of the long term goal of 80% set within the ESSP. The three-year graduation rate in Saskatchewan reached a 20-year high in 2017-18 having increased to 77.4 percent, an almost 3 percent increase since 2012-13 (Saskatchewan Ministry of Education, 2019). The three-year graduation rate for First Nations, Metis, and Inuit students increased slightly more than 7

percent during this same time period, with a 44.5 percent graduation rate (Saskatchewan Ministry of Education, 2019). School divisions are encouraged to continue to focus on engaging students to increase student attendance as well as continue to grow the supports for early years (Saskatchewan Ministry of Education, 2019). Moving forward, Saskatchewan school divisions wrapped up the use of the ESSP in June, 2020, and began using a new framework (Framework for a Provincial Education Plan 2020-2030) to determine and set their yearly focus to ensure priorities are achieved (Government of Saskatchewan, 2019b).

Rural Education

Education in rural K-12 Saskatchewan public schools can be a challenging, sometimes unchartered territory. Traditionally, rural Saskatchewan public education has been offered in a face-to-face environment between educators and learners, typically with educator-centered delivery to groups of learners. However, due to the ongoing migration of people to urban centres, today's rural schools are struggling to maintain an adequate level of education for students in schools. Further technological changes to agriculture decrease the need for agricultural workers and their families, further adding to the decline of rural populations. The many challenges that are in rural communities such as decreasing populations, budget cuts, and weakness of broadband are forcing schools to diversify programming. While urban centers in Saskatchewan are seeing population growth, particularly in large urban areas like Saskatoon and Regina, rural Saskatchewan's reality of a declining population is an existent challenge (Hall & Olfert, 2015).

Current state of educational funding also plays a major role in Saskatchewan education. In addition to population decrease, the 2019-2020 provincial budget fell short of providing school divisions with enough to even maintain status-quo levels of education (Saskatchewan School Boards Association, 2019). Saskatchewan Premier Scott Moe also continues to pressure

the federal government to strengthen broadband access by increasing broadband funding to improve access in remote and rural areas (CBC News, 2019). K-12 learners in rural Saskatchewan are left with no other option to ensure educational and social justice and examine distance education in order to provide insight into sufficient educational opportunities.

The Government of Saskatchewan (2016) recognizes that Saskatchewan schools are preparing and building students for a successful future. Pressure for rural K-12 education reform has been built around the demands of changing learning conditions and rapid growth of technology. Rural Saskatchewan residents are currently facing educational challenges of financial strain, budgetary cuts, teacher and support staff cut-backs, and student frustration (Perrins, 2016) creating an environment of educational and social injustice. Rural Saskatchewan students are experiencing challenges within their education due to these societal issues. COVID-19 has also forced Saskatchewan students, both rural and urban, into the distance education environment without sufficient time to prepare for the barriers.

Positionality One

As a student in rural Saskatchewan for my K-12 educational pathway a little over 20 years ago, a parent of two rural Saskatchewan K-12 students, and a teacher in rural Saskatchewan I have a vested interest in the current state of education in Saskatchewan. Every avenue of my life is affected by the social injustice that is taking place in the current state of Saskatchewan education. As I completed my high school career, having access to classes was not a concern of mine. I completed high school with a sense of ease as my face-to-face experience allowed me to complete my pre-university coursework without any challenges. I do not recall ever worrying that I would not be able to obtain a high school credit due to the

course not being offered. This relevant sense of ease is no longer the case as my own children enter their high school years. High school students in today's rural Saskatchewan schools are feeling high levels of anxiety and stress, wondering if budget cuts and teacher shortfalls will prevent them from obtaining the necessary credits needed to enter their chosen post-secondary educational pathway. Imagine the stress endured as a potential calculus student wonders if she will even be able to have access to such a demanding course as she may be the only student at her grade level who would qualify to take the course. This type of situation is happening in our schools and is a relevant concern for many Saskatchewan residents.

Barriers

Barriers in Saskatchewan schools, especially in rural areas, affect the deployment of quality instruction. These barriers, such as curriculum demand, teacher shortages, teacher workload and technology constraints pique interest for further research into how innovative teaching practices can counteract the changing face of education. Educators in rural schools are often not teaching in their area of expertise and therefore are not providing equal educational opportunities to rural learners as urban learners are receiving (Barbour, 2007). Retention of rural educators poses difficulties for schools as well (Barbour, 2007; de la Varre et al., 2010; Hannum et al., 2009; Mulcahy et al., 2016).

Rural learners' access to the same level of technology as their urban counterparts is a disparity. Barbour (2007) refers to this disparity as the "rural digital divide" (p.17). This term refers to the gap between those who have easy access to computers and the Internet and those who do not due to various demographic factors (Longley, 2021). The digital divide is a challenge not only encountered in Saskatchewan. The topic of the digital divide is discussed on a

worldwide stage, including places such as Britain (Townsend et al., 2013), England, Scotland, Wales (Philip et al., 2017), Australia (Alam & Imran, 2015), India, Spain, United States, and Canada (Subba Rao, 2005). Research demonstrates that this digital divide continues to cause disadvantages for rural areas, largely due to broadband access technologies and the lack of ability of rural residents to adopt technologies (Townsend et al., 2013).

Despite the fact that we live in an apparent digital society, not everyone is digitally connected creating a digital divide (Philip et al., 2017). The Alberta Teachers' Association (2020) identified the rapid move to digital platforms, due to COVID-19, significantly increased technology costs for families and posed remote access challenges creating more equity issues for Alberta students, magnifying the digital divide. Lindsay Shaw, the Associate Director of Saskatchewan Professional Development Unit, Saskatchewan Teachers' Federation, indicated pockets of Saskatchewan struggle in terms of Internet access although school divisions are working to improve this, especially over the last three years (personal communication, July 24, 2019). Myrna Martyniuk, Director, Sector Technologies and Network Services, Government of Saskatchewan, pointed out the biggest issue she sees is home access verses school access where students may have access in their schools but not in their homes (personal communication, July 23, 2019). Prior to COVID-19, the digital divide received occasional attention but one wonders if COVID-19 magnified and shone light on Saskatchewan's rural digital divide?

The rural digital divide can have implications on the design and delivery of education for learners and is a much talked about topic on social networks. The online environment through the use of social networking sites, such as Twitter, can nurture and create professional learning networks to transform and develop knowledge of educators (Macia & Garcia, 2018). Social media is a central communication tool for teachers, students, and parents (Anderson &

McPherson, 2018). Twitter, in particular, is a popular app for teachers to share experiences, reflect, pose questions, provide discussion and emotional support (Wesely, 2013). Twitter is a dynamic space that is updated in real-time with valuable educational topics, including the rural digital divide. As BLiNQ (2019) refers to in a Tweet from June 20, 2019 (Figure 2), the rural digital divide continues to be a concern for nearly one million Canadians. COVID-19 has demonstrated the existence and revealed the barriers posed by the digital divide as the pandemic has forced students to study from their home environments, where technology and access to the Internet do not always exist. As seen in Figure 3, Zero Digital Divide (2020) is using Twitter to spark discussion and awareness to how COVID-19 is adding to the already challenging digital divide.

Figure 2

Screenshot of Twitter (BLiNQ [@blinqnet], 2019)

Figure 3

Screenshot of Twitter (Zero Digital Divide [@ZDDNews], 2020)

Along with the digital divide comes a multi-faceted challenge referred to as the daily divide. As Wiley and Hilton III (2009) describe, the daily divide, unlike the digital divide, discourages students who have access to data plans and digital technologies in their homes. Wiley & Hilton III also mention individuals who have abundant access to Internet and technology use at home can have limited access in the classroom due to educational institution constraints or teacher limitations. Learners who have habits of effective technology use are forced to limit technology use for reasons that are likely out of their own control.

Prior to the COVID-19 pandemic, some provinces, such as Ontario, issued a ban on cellphone use in the classroom. A provincial policy, beginning in September of the 2019-2020 school year, prohibits Ontario students from accessing cellphones during instructional time (Jones, 2019). Ironically, the provincial government of Ontario is now promoting learning from home during the COVID-19 pandemic, as well as student use of their own digital devices, such as cellphones. At this point, no provincial ban has been considered by the Saskatchewan Ministry

of Education but they would have the authority to implement and enforce cellphone policies in K-12 schools (Quaroni, 2019). On a worldwide scale, Western Australia will implement a cellphone ban policy during the 2020-2021 school year due to concerns of student distraction and cyberbullying (Study International Staff, 2019). Is restricting cellphone use in classrooms restricting educational equality? Do we encourage our students to bring their own devices in K-12 Saskatchewan schools? Has COVID-19 forced school division officials to re-evaluate student access to devices?

Learners, especially those in rural areas, are also accustomed to a certain degree of teacher familiarity in a traditional face-to-face classroom. Typically, learners who attend rural brick-and-mortar schools are accustomed to higher levels of teacher immediacy and typically a strong sense of belonging to the educational community (de la Varre et al., 2010). Feelings of isolation are frequently reported by online students and therefore stressing the level of teacher immediacy in student-teacher relationships must be a focus for successful online learning (de la Varre et al., 2010). In a teacher survey given by the Alberta Teacher's Association (2020) 8,100 teachers and school leaders in Alberta documented the impact of COVID-19 during the first wave, where 75 percent felt they did not have the same emotional connection with their students as they had prior to COVID-19.

Teacher workload is also a challenge for education as it can lead to teacher burnout. The time spent teaching, performing administrative duties, organizing extracurricular activities, and leading co-curricular activities can be used to describe teacher workload (Hosain, 2016). In a study conducted by Zydziunaite et al. (2020) found the high demands on teachers to deliver classes, prepare lessons, assess student work, and organize parent communication can be intensive and excessive. The results of this study showed the workload of 418 teachers was

significantly related to the stress level of the teachers. Another study, completed by Prokopov et al. (2020), demonstrated that teachers often complain about emotional exhaustion which can lead to burnout. The study describes burnout as a syndrome associated with professional activities and characterized by emotional exhaustion which can lead to negative consequences. It also describes how burnout is sometimes called “modern teacher’s disease” (p. 315) because it mainly affects teachers. When the challenge of forcing educators into an online environment became a reality, the overall workload of educators increased even more (Kaden, 2020) creating an even greater stress for educators.

There are also several factors that hinder First Nations learners. Socio-economic marginalization and poverty is associated with poorer educational attainment (National Collaborating Centre for Aboriginal Health, 2017). Saskatchewan learners, including First Nations students, experiencing poverty have restricted access to quality education due largely to the challenge of recruiting and retaining high quality teachers (National Collaborating Centre for Aboriginal Health, 2017). Other social and economic challenges including poverty, high suicide rates, family violence, incarceration rates, substance abuse, food insecurity, and high rates of involvement of the child welfare system (Mendelson, 2006) present barriers to First Nations in obtaining a quality education. Such a vast array of barriers creates a complex educational challenge for Saskatchewan public education to provide adequate K-12 education to its learners, including First Nations. The barriers Saskatchewan learners, in particular First Nations learners, are experiencing must be considered in order to improve the educational experience for Saskatchewan residents during the period of COVID-19 and afterwards.

Distance Education Regulation

Saskatchewan is one of only two provinces and territories that does not have distance education provincial regulation to govern K-12 distance education (Barbour & LaBonte, 2018). The province does not have legislation, a policy handbook, an agreement, or a memorandum of understanding to regulate distance education as other provinces and territories may have (Barbour & LaBonte, 2019, 19:10). Other provinces, such as Ontario have been guided since 2006 by the Ontario e-Learning Strategy (Barbour & LaBonte, 2020b), and British Columbia has been guided since 2006 by the School Act, 2006 and the Independent School Act, 2006 (Barbour & LaBonte, 2020a). As Barbour and LaBonte (2020c) describe the history of K-12 E-Learning in Saskatchewan, they identify a provincial correspondence model in Saskatchewan that was established in 1925. They also state that online distance education schools have been in operation in Saskatchewan since 1999. Despite this history of distance education, a common provincial regulation reflecting the teaching and learning needs of 21st century contexts does not yet exist in Saskatchewan.

Barbour and LaBonte (2020c) describe how distance education in Saskatchewan is presently guided by the Saskatchewan Technology in Education Framework where school divisions are required to offer distance learning opportunities to students. They also point out that there is no reference to distance education in the Education Act that requires Saskatchewan students to have access to distance education. Barbour and LaBonte (2019, 16:20) further discuss how Saskatchewan used to have a centralized distance education system but have changed over to a division-based system where individualized school divisions are provided the funding to implement distance education and are responsible for delivery models for learners. According to Myrna Martyniuk, Director, Sector Technologies and Network Services, Government of

Saskatchewan, the challenge Saskatchewan currently faces is that there is no provincial coordination among school divisions (personal communication, July 23, 2019). Each school division is left to themselves to develop and implement distance education programs.

Consistency for implementation of distance education is varied in Saskatchewan as there is no guiding regulation to help divisions develop and implement a common distance education program, leaving divisions to fend for themselves. According to Lindsay Shaw, the Associate Director of Saskatchewan Professional Development Unit of the Saskatchewan Teachers' Federation, the current funding model produces situations where divisions are reluctant to work together, resulting in a redundancy of distance learning offerings across the province (personal communication, July 23, 2019). Prior to COVID-19, the percentage of students in Saskatchewan who were involved in distance education (4.2%) is close to the national Canadian average of 5.1% (Barbour & LaBonte, 2019, 24:03), therefore common regulated practice would prevent divisions from battling various barriers, such as developing a program from the beginning stages, maintaining a wide variety of courses, updating curriculum, supporting and developing online teachers, and maintaining consistency for parents, students and teachers.

Nationwide Concern

Saskatchewan education is not alone in expressing concern over the future of K-12 education. The provincial government in the province of Ontario has recently required that high school students take four of 30 credits in an online environment (Laucius, 2019). Many people close to this situation, including researchers, question this decision as there seems to be many uncertainties behind its advocacy. As Tony Bates (an expert in online learning and author of Teaching in a Digital Age) describes, it does not seem as though research was the basis for Ontario's decision (Laucius, 2019). Randy LaBonte, chief executive of the Canadian eLearning

Network, questions as to whether the current education system can meet the vast increase to meet the demand on school facilities, bandwidth, internet access, teacher time, and student support by its phase in for 2020-21 (Laucius, 2019). As Marit Stiles (2019) supports in a tweet from March 18, 2019 (Figure 4) mandatory distance education courses, cutting teachers, and increasing class sizes is facing backlash from advocacy groups such as the Minister's Student Advisory Council. The Ontario Education Ministry has not invested in capacity building of its' teachers therefore the distance education teachers have been left to figure things out on their own (Syed, 2019).

Figure 4

Screenshot of Twitter (Marit Stiles [@maritstiles], 2019)

The complexity of distance education is pushed to the side as many view distance education as simply an extension of the face-to-face environment. In a report presented by Archibald, Barbour, Leary, Wilson, and Ostashewski (2020) a respondent stated, "online is just another way of providing instruction. If you can take on a full teaching responsibility in a classroom, you probably can handle an online course if you know how to use the technology" (p.

11). Another example of a simplistic view of distance education is the province of Ontario trying to use distance education to cut educational costs rather than improve the quality of instruction and education their students will receive (Syed, 2019). The education of our students in an online environment must be given the respect and planning that it deserves.

Online learning is also seen as a solution for social distancing in both higher education and K-12 (Divayana, 2020). As the threat of COVID-19 blanketed Canada in March 2020, education institutions in both higher education and the K-12 sector looked to distance education as a solution to closing schools. On March 13, 2020 the province of Manitoba closed all K-12 schools to help lessen the effects of COVID-19 on the residents of Manitoba, instructing schools to find ways to move classes online (Unger, 2020). The province of Saskatchewan followed closely behind when Premier Scott Moe (2020) announced the indefinite closure of all K-12 schools in the province (Figure 5). The University of Regina also cancelled all classes for four days during their Winter 2020 semester, beginning March 14, 2020, where classes were then resumed at a distance only to finish the semester (Djuric, 2020). The direction to move classes online gave teachers mere days to move into an online environment with little to no distance education training.

Figure 5

Screenshot of Twitter (Scott Moe [@PremierScottMoe], 2020)

Problem Statement

Many K-12 public schools in Saskatchewan are faced with a variety of barriers, magnified by COVID-19, which are preventing them from providing a variety of curriculum related student-centered learning opportunities. The problem this exploratory qualitative insider action research study addresses is that Saskatchewan K-12 learners are not receiving equal educational opportunities due to barriers presented by the current state of K-12 education. This problem may be exacerbated by lack of support and unregulated distance education within the province of Saskatchewan. Many school divisions are seeing an increase for the need of distance education opportunities for their students, especially during the COVID-19 pandemic, however the province is leaving it up to the individual school divisions to devise their own plan of actions. Other barriers, such as the lack of professional development for online teachers, lack of evidence-based guidance for development of programs, and the lack of researchers focused on

the area of K-12 distance education (Barbour et al., 2013) make the development of K-12 distance education challenging. This study presents the perceptions of K-12 public school educators from across the province of Saskatchewan to seek understanding of educator needs and current experiences in the field of K-12 distance education. The data obtained from K-12 educators has been corroborated and triangulated using field notes and my positionality.

Positionality Two

As an educator and a parent in a rural Saskatchewan public school my research revolves around providing rural Saskatchewan learners with educational opportunities that are on par with their urban counterparts, as well as providing teachers a voice. I take pride in rural Saskatchewan student achievement in this time of instructional change and rural challenges. I believe that distance education provides an alternative option to rural Saskatchewan learners. This option deserves to be as high quality as a traditional education, if not higher. In rural versus urban education, learners and teachers are forced to look for alternative modes of education, such as distance education, to meet their needs. Traditional education does not always allow for rural Saskatchewan students to obtain the educational opportunities they require. Pressure for rural education reform from key educational stakeholders including students, parents, teachers, administrators, and researchers has built around the demands of the changing learning conditions and rapid growth of technology. Distance education is important to me, both professionally and personally, as I recognize that Saskatchewan schools are preparing and building students for a successful future.

Purpose of Study

The research in this study collected perceptions of Saskatchewan K-12 public school educators using email interviews. Field notes were created during and shortly after the email interviews took place to create a record of the study unfolding in real time (Phillippi & Lauderdale, 2017). This timing capitalized on my fresh memory but also allowed for critical reflection at a later time (Phillippi & Lauderdale, 2017). A force field analysis (FFA), a methodology developed by Kurt Lewin (Toves et al., 2016) and widely used in planning and implementing change (Youssef & Mostafa, 2019), was used to identify positive forces/factors and negative forces/factors (Weiss et al., 2017) from the data collected. Lewin's FFA theory believes that behavior arises from forces and changes to this behavior can arise from changes to these forces (Burnes & Cooke, 2013). The FFA is a tool that assisted in ranking those forces, or factors, by importance and changeability (Toves et al., 2016) to identify areas of strength and weakness of distance education in Saskatchewan. By analyzing positive and negative forces using FFA, identifying how to strengthen forces that support distance education and weaken forces that oppose distance education will help to influence change (Youssef & Mostafa, 2019).

Educators were given the opportunity to personalize their experiences with distance education. Providing Saskatchewan public educators with an opportunity to offer testimony in regard to distance education, in addition to factual information, offered them an opportunity to personalize their experiences (Bas & Grabe, 2015) and gave them a voice. By giving educators a voice their opinions are valued and heard, increasing their workplace satisfaction (Huss, 2016). Personalization of the experience of distance education through the eyes of the educational stakeholders involved in the research provided insight into the strengths and weaknesses (barriers) of the current state of distance education in Saskatchewan's public education system

and provided an insider's view. The goal of the research was to provide recommendations for an improvement in the educational experience of the online learner in Saskatchewan.

Distance education is a complex combination of constantly changing technology, pedagogy, and content (Kidder, 2015). To identify and strengthen distance education, components of various frameworks must work together. Working together, the Conceptual Framework for Distance Education in K-12 Saskatchewan (Figure 6), the CoI (Figure 8), and the TPACK framework (Figure 9) provided guidance in analyzing the current state of distance education in Saskatchewan public schools and ultimately leading to recommendations or action plan items. Each of these frameworks present unique aspects that are necessary for success in distance education. Data collected from email interviews of Saskatchewan public school educators were coded to identify the presence, or lack thereof, of the components of the Conceptual Framework.

These experiences were analysed with a FFA to develop a framework to identify potential provisions. These provisions were then used to develop a plan of action to improve the field of K-12 distance education in Saskatchewan by identifying specific target areas. The CoI and the TPACK framework were used to help identify the strengths and weaknesses leading to recommendations. This created a multi-dimensional view of overlapping skills required for distance education success (Kidder, 2015).

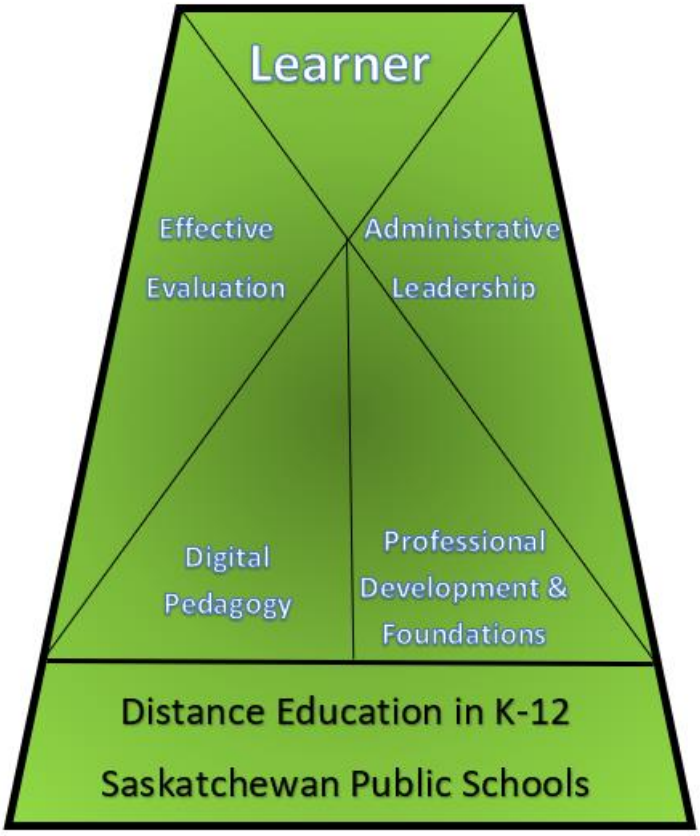
Conceptual Framework

The following conceptual framework supported this research (see Figure 6). A conceptual framework supports research by communicating ideas and identifying concepts and linkages (Ivey, 2015). Green (2014) describes conceptual frameworks as maps that provide researchers with a rationale for the development of research questions. The important thing to understand

about a conceptual framework is that it is an abstract model of what will be studied (Maxwell, 2005) and offers an overview of the focus of the research (Van Schalkwyk et al., 2012). A conceptual framework aids in justifying and showing people why this research is so important (Maxwell, 2005). I developed this original conceptual framework, as illustrated in Figure 6, to provide a visual representation of the main ideas and concepts important to the research questions.

Figure 6

Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools (Source: original)



The conceptual framework presented in this research was based on the research of Corry and Stella (Corry & Stella, 2012). They developed a conceptual framework consisting of nine

critical components (learners, teachers, materials, delivery, methodology, evaluation, administration, international, and history) based on a survey of current research and is significant to my study. In my research, I proposed a categorized conceptual framework with five chosen components, derived from seven of these critical components as demonstrated in Figure 7.

Figure 7

Comparison of Conceptual Framework and Framework for Research Categories (Source: original)

Conceptual Framework	Framework for Research Categories (Corry & Stella, 2012)
Learner	Learner
Professional Development & Foundations	Teachers
Digital Pedagogy	Teachers; Materials; Delivery; Methodology
Effective Evaluation	Evaluation
Administrative Leadership	Administration
	International
	History

Corry and Stella's components of international and history were not included in my conceptual framework. International was not included as I primarily focused my research on the province of Saskatchewan. Although I have presented background from various distance education international markets, the impact of these international areas does not significantly affect the components of my conceptual framework. History of distance education has been used to establish an examination of change and learning throughout my research. It was not included in my conceptual framework because of my focus on current, real-time perceptions of educators in the K-12 field today.

A conceptual framework cannot capture the important details of what is being researched as it is a simplified model of a complex research reality (Maxwell, 2005). Each of the areas

found within the framework have deeper understandings. The Learner consists of the characteristics of Saskatchewan K-12 learners enrolled in distance education courses. The learner is the central focus, as ultimately the result of the proposed research is to improve upon the educational outcome for the learner (Corry & Stella, 2012) and reduce the "rural digital divide" (Barbour, 2007, p. 17), serving the learner. Learners experiencing social presence can define themselves in a community of online learners (Barbour, 2015). Discussion and focus on course access, technology needs, learning styles, learner special needs, learning environments, at-risk students, advanced academic students, class size, development of social skills, and success rates are all components of the learner in a Saskatchewan distance education course.

Administrative Leadership focuses on the direction provided by school divisions, as well as the Ministry of Education, and the partnerships developed between the influential groups involved in distance education. Policies for monitoring distance education, legislation, collaboration between schools, administrator training and development, administrative and technical support, hiring online teachers, and cost/benefit analysis (Corry & Stella, 2012) are key concepts of leadership. Research conducted by Day (2012) revealed that teachers indicated that strong leadership (76%) was a supporting factor of a teacher's sense of identity, while also identifying that negative pressures of leadership (58%) could have a negative effect on teacher effectiveness. As Hassell and Terrell (2004) recognize, those invested in leadership need to work together to develop a distance education plan. Is the administrative leadership in Saskatchewan listening to the voices of the educators at the front lines?

Professional Development and Foundations focuses on the preparation and sustainment of the teachers involved in distance education. Through communication, mentorship, collaboration, teacher training/professional development, supervision, evaluation, student

teaching, and modelling, instructors can work to develop and adapt their skills to shift from traditional face-to-face teaching to online teaching. The complexity of distance education and ever changing technologies require collaboration to provide growth opportunities to the professionals involved (Zawacki-Richter et al., 2009). Teacher evaluation in an online distance education environment is complex as it includes pedagogical knowledge, content knowledge, and technological knowledge (Corry & Stella, 2012). As identified in the National Standards for Quality Online Teaching created by the Virtual Learning Leadership Alliance and Quarterly Matters (2019), teachers in an online environment must strive to meet Standards A-H:

> Standard A – Professional Responsibility: "The online teacher demonstrates professional responsibilities in keeping with the best practices of online instruction" (p. 8).
>
> Standard B – Digital Pedagogy: "The online teacher supports learning and facilitates presence (teacher, social, and learner) with digital pedagogy" (p. 11).
>
> Standard C – Community Building: "The online teacher supports learning and facilitates presence (teacher, social, and learner) with digital pedagogy" (p. 13).
>
> Standard D – Learner Engagement: "The online teacher promotes learner success through interactions with learners and other stakeholders and by facilitating meaningful learner engagement in learning activities" (p. 16).
>
> Standard E – Digital Citizenship: "The online teacher models, guides, and encourages legal, ethical, and safe behavior related to technology use" (p. 19).
>
> Standard F – Diverse Instruction: "The online teacher personalizes instructions based on the learner's diverse academic, social, and emotional needs" (p. 21).

> Standard G – Assessment and Measurement: "The online teacher creates and/or implements assessments in online learning environments in ways that ensure the validity and reliability of the instruments and procedures. The teacher measures learner progress through assessments, projects, and assignments that meet standards-based learning goals, and evaluates learner understanding of how these assessments measure achievement of the learning objectives" (p. 24).
>
> Standard H – Instructional Design: "The online teacher curates and creates instructional materials, tools, strategies, and resources to engage all learners and ensure achievement of academic goals" (p. 27).

This list of standards provides a sense of what Saskatchewan needs to consider as part of a provincial policy regarding distance education. At this point, individual school divisions are responsible to evaluate educators, both face-to-face and online.

Some of the Professional Development and Foundations in online teaching environments, such as student teaching in distance education, have not received as much attention as it has in face-to-face teaching environments (Corry & Stella, 2012). As distance education continues to grow at the K-12 level the majority of teacher programming has not kept pace with preparation of teachers to teach in an online environment (Archibald et al., 2020). In a study conducted by Archibald, Barbour, Leary, Wilson, and Ostashewski (2020), 68% of their respondents (17 respondents) identified the programs they participated in did not offer any field experiences in K-12 online programming. Bowling Green State University has launched an education certificate for virtual teaching after COVID-19 forced teachers to look for ways to gain new skills (Addessi, 2020). This program focuses on addressing issues related to online learning (managing online

learning/classrooms, digital equity, and motivation). These foundations are an integral part of preparing distance education teachers.

Positionality Three

I have recently completed my 18th year in the educational field, 17 of which have been spent in Saskatchewan. I have not yet had one single colleague say that they spent part of their student teaching experience in an online environment. Some of my colleagues have received training provided by a division but none have come out of university with such a field experience. I would hope that sooner or later universities are going to recognize they are training teachers of the future where distance education will be a very real part of their reality. COVID-19 forced the education sector to acknowledge the lack of teacher preparation for distance education as teachers were thrown into an online environment with mere days to prepare. I am always curious when talking with new teachers about how they respond to questions regarding technology. Most, if not all, are quite comfortable using technology in their classroom face-to-face instruction. They are eager to share their stories of using Google classroom, SMARTboard activities, and social media in their face-to-face classrooms. I have yet to have a discussion with a new teacher about how they have used blended learning or distance education to further their instruction.

As educators challenge their personal identities from a face-to-face classroom to an online environment, they must be aware of Digital Pedagogy. Digital Pedagogy consists of instructional planning strategies, approaches to learning, delivery of instruction, elements of instruction, software, interaction, engagement, and assessment practices. The digital pedagogy of a distance learning environment is an adaptation of in-person strategies and development of new

online learning strategies. The importance of recognizing that in-person teaching and online teaching have some similarities and differences is a successful component for digital pedagogy. Recognizing that teaching online distance education is much more complex than simply taking material used in in-person environments and putting it online is also an integral component of instructional pedagogy (Black et al., 2009).

Growth of online teaching is also occurring through blended learning (Staker & Horn, 2012). Blended learning is an education where students learn at least part of the content through online delivery and the other part at a bricks and mortar location (Staker & Horn, 2012). Strategies of pedagogical instruction in an online learning environment relate to the delivery of content and activities completed (DiPietro et al., 2008). It is critical that student learning is assessed in an online environment to demonstrate knowledge of curriculum outcomes. Too often, distance education outcomes are evaluated using the same standards that have been developed for in-person learning (Watson, 2005).

Some provinces, such as Alberta, include technology-enabled learning as part of their Teaching Quality Standards (Alberta Education, 2018), while other provinces, such as Saskatchewan, make no direct mention of technology expectations in their Standards of Practice (Saskatchewan Teachers' Federation, 2017). For provinces such as Saskatchewan, the National Standards of Online Instruction can work to provide an effective framework by providing flexible guidance (Virtual Learning Leadership Alliance & Quality Matters, 2019). The International Society for Technology in Education (ISTE) (2021) believes that technology can transform teaching and learning. Therefore, we must rethink how we teach and learn, following the ISTE Standards for Educators. While unpacking these standards, key action items are identified: setting goals, staying current with research, advocating, modelling, mentoring,

planning, collaborating, creating authentic learning, and using technology to design and implement. The goal for teachers is to bring these standards to the online classroom.

Lastly, the final area is Effective Evaluation. Evaluation plays a role in holding schools, learners, teachers, and others involved in distance education accountable (Corry & Stella, 2012). Distance education stakeholders, such as students and parents, need to have confidence that the education they are receiving via distance education is of value. Evaluation of the effective practice of distance education includes: effectiveness of online learning, student and teacher evaluation in distance education environments, and quality indicators in online learning (Corry & Stella, 2012). Evaluation provides valuable information regarding implementation systems and flaws in course design, which can then generate course improvement strategies (Ruhe & Zumbo, 2009). Whether using formative evaluation (used to improve a program) or summative evaluation (used to determine the success of a completed program) (Ruhe & Zumbo, 2009), the effectiveness, quality, and evaluation all work together as part of a whole because they work in partnership to build the learner's experience (Corry & Stella, 2012).

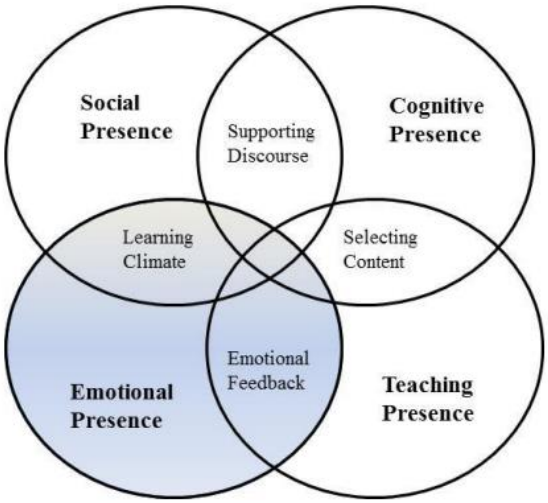
Community of Inquiry (CoI)

CoI (Figure 8) was used in this research to help identify recommendations and action plan items to strengthen distance education in Saskatchewan. CoI assumes learning occurs as three core elements interact: social presence, cognitive presence, and teaching presence (Garrison et al., 1999). Recent research also suggests that a fourth presence, emotional presence, may be needed to compliment the CoI (Cleveland-Innes & Campbell, 2012). Indicators of these elements were recognized within the educational experiences identified by the distance education teachers involved in the research. These indicators contain certain words or phrases that will help to identify the element(s) involved in the experiences of the research participants using FFA.

From the FFA, further skills that need to be developed for distance education teachers to fully leverage the power of CoI were identified and included in an action plan.

Figure 8

Community of Inquiry (CoI) Theoretical Framework (Rienties & Rivers, 2014)



Note. Rienties and Rivers (2014) adjusted the original Community of Inquiry model of Garrison (2011) by adding in Emotional Presence.

The CoI model is recognized as the most cited theoretical framework for developing online courses for developing and teaching research in online higher education (Bozkurt et al., 2015). Much of the rationale for the CoI theoretical framework has evolved from research in adult and higher education (Garrison, 2016). Little research exists that examines the applicability of CoI for K-12 learners, but this theoretical framework is becoming a springboard of adaptability to understand the online environment of K-12 learners (Harrell & Wendt, 2019). The significance of this theoretical framework is that it can be used to demonstrate how implementation of a distance education program can be negatively affected with one or more of

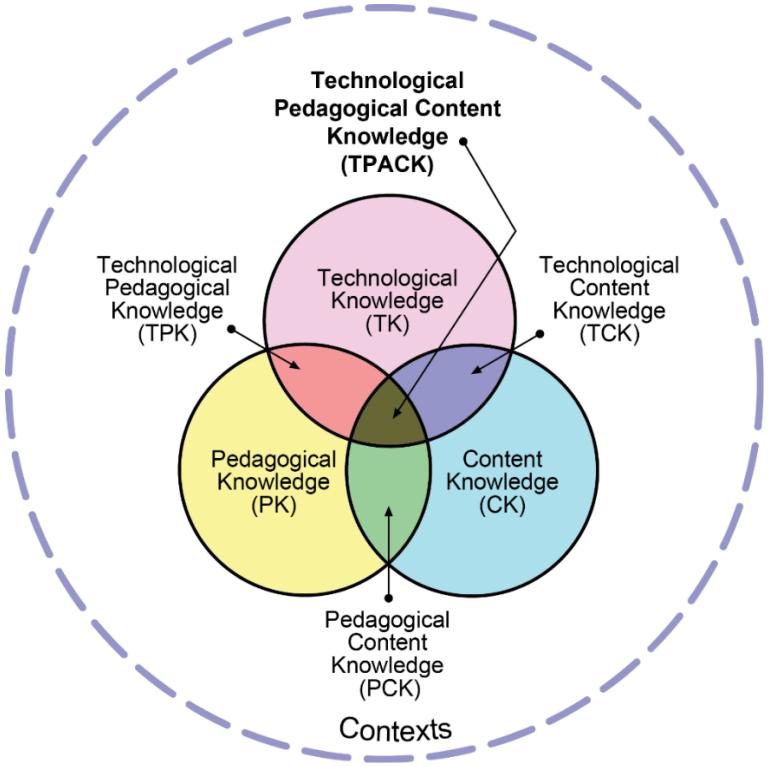
the presences absent from program design. The CoI, a social-constructivist framework, has the ability to demonstrate the efficacy of learning by looking at the core elements of teaching and learning.

Technological, Pedagogy, and Content Knowledge (TPACK)

What teachers know has been a research interest in education for quite some time (Loughran, 2010). Honan (2004) describes teachers as bricoleurs who are professionals creating complex assemblages of classroom practices engaging in rigorous theoretical work. Lee Shulman (1986) developed a knowledge base for teachers stating that teachers draw on a wide range of knowledge. From this, Shulman identified pedagogical content knowledge (PCK) as the distinguisher of an expert teacher. Matthew Koehler and Punya Mishra (2009) built on Shulman's model and developed the TPACK framework (Figure 9). TPACK describes factors that contribute to successful teaching with technology, with focus on theoretical, pedagogical, and methodological understanding of technology (Saubern et al., 2020). Koehler and Mishra (2009) describe the concentration of this model on three main components of teacher's knowledge: content, pedagogy, and technology, including the interactions among these three components. They depict how by integrating content, pedagogy, and technology, teachers are bringing TPACK into play any time they are teaching. They also describe how there is no one single application for every teacher, but an ability of a teacher to flexibly navigate the interactions and understand the complexity helping to strengthen the model. Indicators of these components were identified and supported within the action plan items and recommendations.

Figure 9

Technological Pedagogical Content Knowledge (TPACK) Framework (Koehler, 2012)



Together, the Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools, the CoI model, and TPACK will work together to provide a complex guide to identify successful components of distance education in Saskatchewan, as well as possible missing components, and recommendations to strengthen this mode of learning. The Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools was used to identify areas that influence the quality of distance education. CoI was then used to help identify recommendations for learning strategies, activities, and support, while TPACK was used as the basis for design of curriculum and content within the recommendations (Papanikolaou et al.,

2014). K-12 educators in Saskatchewan had the opportunity to share their experiences within the areas of the conceptual framework which was then analyzed with the CoI and TPACK to help strengthen future distance education.

Force Field Analysis (FFA)

A key outcome of this study was to develop action steps for process improvement. FFA is a systematic, scalable, and flexible method for looking at the factors that influence the achievement of an objective (Smartt et al., 2018; Weiss et al., 2017). FFA helps to overcome factors that work against achievement of goals and leverage factors that work in favor of achieving goals (Smartt et al., 2018). In this research, the objective is to improve the quality of opportunities for distance education for Saskatchewan students within the formal education system. By using a FFA, the positive forces that will help improve distance education and the negative forces that are causing distance education to become further distant from the goal are identified (Weiss et al., 2017). After collecting the data from the teacher email interviews, I used a FFA to analyze the results of the data using my conceptual framework to identify forces that influence, drive, or impede change in the field of distance education.

Research Questions

The purpose of this study was to use FFA to triangulate data. The triangulation of data occurred from the collection via email interviews of the perceptions of K-12 Saskatchewan educators working within the public school divisions under the jurisdiction of the Ministry of Education, my field notes, and my positionality. Specifically, this study was guided by the central research question of: How do public school educators in Saskatchewan K-12 schools perceive the state of distance education in the province during the first wave of the COVID-19 pandemic?

The following sub-questions helped to guide the research study:

1. What are the positive/valuable experiences of public educators in K-12 distance education in Saskatchewan during the first wave of the COVID-19 pandemic?
2. What are the barriers public educators in K-12 distance education in Saskatchewan are facing during the first wave of the COVID-19 pandemic?
3. What are possible steps for development that can improve access and opportunities within the formal education system for distance education in Saskatchewan?
4. What are possible steps for future research that can improve access and opportunities within the formal education system for distance education in Saskatchewan?

The focus of this study was on the professional experiences and observations of the people involved in the frontlines of K-12 distance education in Saskatchewan during a pandemic. These perceptions helped to create a picture of the current state of distance education in the province of Saskatchewan and helped to develop a framework strengthening the existing successful attributes and address the barriers of distance education within the province. This research will also help to contribute to the development of distance education in other provinces of Canada, as well as locales such as Australia. Distance education is an important element for communities globally.

Chapter 1 Summary

Through a discussion of the conceptual framework and presentation of the primary research question, this chapter introduces the context of the proposed research. Sub-questions are also presented to provide further details of communicated outcomes. The research in this study provides perceptions of K-12 Saskatchewan public school educators under the jurisdiction of the Ministry of Education, describing the current state of distance education during a global

pandemic. In addition, this study will conclude by presenting a visionary FFA demonstrating proposed changes to strengthen and weaken forces of the current state of distance education in the province of Saskatchewan. From this, an action plan was developed that can then be used by schools, as well as the Ministry of Education, to identify distance education areas to improve and strengthen.

The Literature Review that follows in Chapter Two will help to provide a more detailed description of the need to address K-12 distance education based on the current scholarship. Chapter Three, the Methods chapter, then discusses the rationale behind the proposed study, including how the research was approached and why the approach was chosen. Chapter Four will outline and contain the findings of the study. Chapter Five will discuss the findings and future research potential.

Chapter 2: Literature Review

Introduction

The 21st century has begun with an evolving demonstration of a paradigm shift in education (Bozkurt et al., 2015). This shift has resulted in new delivery modes of education in Canada with distance education implementation as a response to this change. As Tony Bates (2008) describes, distance education is more a method of education, not a philosophy, where students can study without face-to-face contact with a teacher, study on their own time, and choose the place of their study. Distance education can transform pedagogical practices and provide flexible learning opportunities and expand learning communities for K-12 students (de la Varre et al., 2010). Students in areas, such as Saskatchewan, need to utilize contemporary distance education to ensure equal opportunities in education, especially during a time of the COVID-19 global pandemic. The problem presenting itself is that distance education is not utilized to its full potential in all areas of Saskatchewan, hindering equal educational opportunities. As the Saskatchewan Ministry of Education states, “Technology use is no longer just an option for our students and teachers, but a fundamental literacy” (Saskatchewan Ministry of Education, 2013, p. 1). Saskatchewan school leaders need to recognize this situation and act on solving the problem.

This chapter will review existing literature that explores K-12 distance education within Canada. It will also explore how the history of K-12 distance education in Canada has shaped the educational opportunities available to Saskatchewan students. Insights into education in Saskatchewan will help to highlight the need for K-12 educational evolution to include opportunities of distance education and help to illuminate the daily divide. Further, I examine the challenges of rural and remote Saskatchewan that have prompted educational stakeholders, such

as superintendents, school administrators, teachers, parents, and students to call for an innovative shift in paradigm in K-12 education. I also discuss the implications of distance education with respect to Canada's Truth and Reconciliation Commission (TRC) reports and findings. I will also explore COVID-19 and how it has presented and highlighted various barriers to distance education in Saskatchewan. Finally, the lack of research in Saskatchewan related to K-12 distance education is discussed and the literature is examined to identify areas of further focus. Throughout my literature review I strive to provide answers to the following questions:

1. What is distance education?
2. In what ways is Saskatchewan lagging behind other Canadian provinces and/or territories?
3. What are the benefits and barriers of distance education?
4. What are the concerns of rural education?
5. How does the daily divide affect the education of K-12 students?
6. How has COVID-19 affected public education in Saskatchewan?
7. What research is needed to further develop distance education in Saskatchewan?

To conduct my review, I have accessed various data bases made available through Athabasca University's Library and Scholarly Resources, including Academic Search Complete and ERIC. I have also consulted the World Wide Web, particularly Google Scholar. I have accessed these resources using the search terms, but not limiting myself to: distance education, K-12 education, online learning, rural education, digital divide, barriers and benefits.

I use the literature gathered to provide evidence for the need to focus further research on Saskatchewan distance education. The amount of literature gathered was very limited as there is

little academic research available to support the practice of K-12 distance education and to identify the needs of such a quickly changing and demanding area of education.

Defining Distance Education

As Bates (2008) describes, it is very difficult to define distance education as it is such a dynamic and fast paced phenomenon that is less a philosophy and more a method of education. Research in the field of K-12 distance education has a difficult time staying up to date and catching up to the pace of technology change (Vickers, 2017). In a study conducted by Bozkurt (2019), he explains that in order to carry out meaningful research, it is important to establish a definition of distance education. He states that distance education is often used as an umbrella term that generically can be used to imply other like terms. Bozkurt describes how in many cases terms such as open education, open and distance learning, and distance education are often used interchangeably, although distance education often refers to the methodology and open often refers to policy and vision. For the purpose of this study, distance education is defined as a, "general term for any type of educational activity in which the participants are at a distance from each other – in other words, are separated in space. They may or may not be separated in time (asynchronous vs. synchronous)" (Barbour et al., 2011, p. 7). Technology, a critical component of contemporary distance education success, allows students to have the ability to study on their own time, to study at their place of choice, and to experience education without face-to-face contact with a teacher (Bates, 2008).

Technology enhanced learning and blended learning are terms that are commonly associated with distance education. Technology enhanced learning describes learning that occurs through the use of technology (Fominykh et al., 2022). Constantly changing technology poses challenges to student learning (Kidder, 2015), therefore it is important to note the application of

technology to teaching and learning impacts distance education. Blended learning is a product of technology enhanced learning that allows educators to choose a combination of on-line and face-to-face strategies (Northern Illinois University Center for Innovative Teaching and Learning, 2012). The main difference between distance education and blended learning is the amount of online learning relative to face-to-face learning (Northern Illinois University Center for Innovative Teaching and Learning, 2012).

Roots of Distance Education

Understanding the roots of distance education and its rich history of theory and practice will help educational stakeholders to formulate a new phase of distance education in a way that takes into account the strengths and values of the past (Evans & Nation, 2003). Australia has been a major contributor to distance education for over a century. Since the 1920s, Australia has used distance education, or correspondence education as it was once called, to serve the needs of its rural population (Reiach et al., 2012). Australia's rural geography and sparse population have influenced the growth and widespread use of distance education with K-12 students (Stacey, 2005) and could be seen as a model for other countries that have rural areas struggling to achieve educational success and equality.

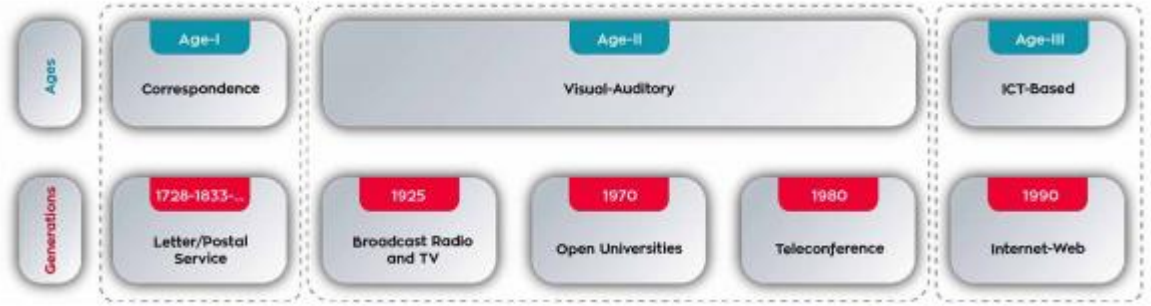
Canada and Australia demonstrate similarities, as well as differences. Both countries have areas of sparse rural population where K-12 students require distance education to obtain instruction that is equal to their urban counterparts. A lesson Australia can share with countries like Canada is the successful organization and administration of distance education at a federal level. Canada does not have federal jurisdiction over provincial or territorial distance education (Barbour & LaBonte, 2017), therefore consistency across the country is a challenge. As of 2011, Australia had five K-12 online learning programs (Barbour et al., 2011) setting the world stage

for K-12 learning. Australia and its history of distance education serves as a positive example that consistency across policy and practice can serve to provide a solid educational foundation upon which to build successful K-12 student results.

The pragmatic history of distance education reflects changing paradigms in the field of education. Bozkurt (2019) notes the history of distance education can be classified under three ages and five generations that were shaped by the communication technologies of distance education at the time (Figure 10). Presenting the history, Bozkurt describes that during the first age, or correspondence distance education, the content was delivered by mail to learners who were primarily adults. The printing press and postal service were the primary print media during this timeframe. He moves on to describe how the invention of the radio and television accelerated the speed of communication which resulted in the second age, also referred to as visual-auditory distance education. Bozkurt describes gradual changes that learners experienced as learners started to gain independence and autonomy through new technologies. Included in this second age are three generations of distance education: broadcast radio and television, open universities, and teleconferencing. Marking the third age, Bozkurt illustrates how computer-based distance education led to the fifth generation where a personal approach to reaching individuals became possible. He stresses how learning and becoming a lifelong learner became the important focus during this age of distance education, rather then teaching.

Figure 10

Ages and Generations of Distance Education (Bozkurt, 2019)



Global Scale

On a global stage, distance education continues to evolve and is utilized and presented in a wide variety of ways. The number of students enrolling in distance education globally continues to grow (Alberta Education, 2019a). This global perspective can be helpful to form a vision for the future of distance education in Canada. Barbour et al. (2011) present examples from nine different counties that discuss the state of K-12 distance education. In the case studies described by Barbour et al., the state of K-12 distance education with New Zealand is presented as a model for how distance education has been utilized for the K-12 student population. As their distance education initiative took shape over 25 years ago, they initially focused on rural schools where their Ministry of Education was responsible for providing hardware and software resources while their e-learning clusters were responsible for providing K-12 distance education opportunities, professional development for teachers, and other technology projects. With this model in place, New Zealand has established a solid basis for distance education.

There is also evidence presented in these examples that countries such as the United Kingdom and Turkey are struggling to establish a distance education foundation due to a variety of challenges. Turkey struggles through the challenges of infrastructure and access for K-12

distance education programs, as many areas of Canada do. Although Turkey presents these struggles, they are still attempting to provide off-line material and low-bandwidth online material to help meet the needs of their target focus group of students in rural areas. Spending constraints and budget cuts have eliminated much of the funding once available for the United Kingdom to provide distance education to their K-12 students (Barbour et al., 2011). The government does not provide standards, licencing requirements for online teachers, or professional development leading to the struggles of establishing a firm base for distance education evolution in the country.

Even though Barbour et al.'s (2011) examples identified the international surge in distance education demands it has also identified the challenge that access may not meet the demands. The global concerns focus largely on the challenges of lack of funding and teacher professional development. Barbour et al. stress there is not one country that has yet to develop a plan to address teacher professional development on a scale of retraining the teaching profession. The vast majority of educational programs have not kept pace with the growth of K-12 distance education (Archibald et al., 2020). Learning to work in new ways in the classroom needs to be a professional development target for schools to support teachers or the result will be a disruption of teacher development (Day, 2012). The concerns are relevant concerns in Canada as well and present themselves in Saskatchewan's K-12 distance education system.

Another question to ask is why there are almost no examples of K-12 distance education for pre-service teaching within the literature and delivery of teacher education in Canada (Archibald et al., 2020)? Post secondary institutions seem to remain focused on educating teacher candidates for a face-to-face model of education (L. Shaw, personal communication, July 24, 2019) and have not kept pace with preparing educators for online environments (Archibald et

al., 2020). Reasons programs do not offer pre-service field experience in distance education include lack of resources, not having the knowledge to run a program, limited usefulness in the future careers of teachers, and provincial certification requirements making distance education field experiences difficult (Archibald et al., 2020). Teachers are not prepared to teach online when they exit university; teachers are comfortable to be users of technology from student experience but not as a teacher in an online environment (M. Martyniuk, personal communication, July 23, 2019). The need to shift teacher training away from how to use the technology to how to shift pedagogy to deliver instruction in a new way through distance education seems to be a global issue, including that of Saskatchewan.

COVID-19

In early 2020, the COVID-19 virus pandemic substantially disrupted all aspects of education and posed yet another challenge. Virtually the entire education system in countries across the world was shut down, disrupting the lives of millions of students and educators. Reports first surfaced of COVID-19 in December, 2019 in Wuhan, China (Kennedy, 2020). The World Health Organization declared the COVID-19 pandemic a "Public Health Emergency of International Concern" on January 30, 2020 (Kennedy, 2020 p. 15). In Canada, as of April 15, 2020, there were 27,557 confirmed cases of COVID-19 (Chattu et al., 2020). Increasing substantially, the total number of confirmed cases of as of July 30, 2021 grew to 1,430,483 (Government of Canada, 2021).

COVID-19 is a major pathogen that targets the human respiratory system and is transmitted primarily through droplets of saliva or discharge from the nose (Hill, 2020). Most people who are infected with COVID-19 experience mild-to-moderate respiratory illness and recovery, while people who are older and those who suffer from underlying medical conditions

are more likely to develop more serious illness and are at risk of death (Hill, 2020). In December, 2020, the first recipient of the COVID-19 vaccine received her first dosage (Aiello & Forani, 2020). Although vaccines exist and have been administered there is a high sense of hesitancy to get vaccinated (Pinto et al., 2021) making the spread of the virus a valid concern for large groupings of people, including schools. Since there is still no available vaccine for children under the age of 12 (Somos, 2021) schools continue to be cautious. Social distancing has been the recommended measure to reduce the spread of the virus (Hill, 2020). The need for the education sector to mitigate and prevent the spread of the virus grew very apparent as the pandemic rapidly evolved.

Tragically, the largest effect of COVID-19 has been the rising death-toll worldwide. But this pandemic has also disrupted the lives of many students. With the closing of schools during the first wave of COVID-19, students were cut off from meals that schools may have been providing them, teachers who provide emotional support, student athletes saw sports abruptly end, graduation ceremonies were cancelled, and students were left in limbo (Kennedy, 2020). The Alberta Teachers' Association (2020) identified in their study of 8,100 teachers and leaders, that COVID-19 amplified existing challenges of inequality and poverty. On March 16, 2020 the Government of Saskatchewan (2020b) announced all public and private primary and secondary educational institutions in Saskatchewan were suspended indefinitely, effective March 20, 2020. As described by the Government of Saskatchewan, school divisions in Saskatchewan were instructed to promote all students to the next level, and that students in high school classes (grades 10-12) would be given the opportunity to improve their marks if the student chose to do so through distance education and alternate learning methods. The Government of Saskatchewan also mandated supplemental learning to be made available for students and families who chose to

participate. As described by Kennedy (2020), many K-12 schools were reluctant to move into online supplemental learning because many students do not have access to the internet at home or access to technology devices. COVID-19 forced K-12 educators in Saskatchewan, as well as globally, to be involved in distance education.

K-12 educators in Saskatchewan hold a wealth of knowledge when it comes to learning about the challenges of how students were flung into distance education due to COVID-19. As Bullough (2008) describes, researchers have an obligation to ensure educator's voices are heard. It is the goal of this research to provide Saskatchewan K-12 educators with that necessary voice. Evidence shows there is a lack of teacher use of research because they are not involved in the research process (Day, 2012). The importance of teacher voice is necessary to ensure the results of this research are meaningful for those who are on the front lines of Saskatchewan K-12 classrooms during a global pandemic.

Alongside teacher voice comes the importance of the researcher's self-study. Self-study research is specifically related to teacher educators (Hauge, 2021). As Hauge describes, it is important to discover and become aware of the complexity of teaching. There is no correct way to conduct a self-study. He also describes how, as the research unfolds, learning through the research will grow and affect future practice. The ultimate goal is to create change and improvement for the researcher, as well as other individuals in education (Hauge, 2021). Benefits of self-study include the teacher taking ownership of their own learning and taking problematic situations as learning opportunities (Attard, 2017). As a researcher and a teacher, I intended to take charge of my own professional development and improvement of practice by researching prominent issues in K-12 distance education.

Teacher's voice and a researcher self-study can state the reality of education from the trenches, but they are not the only change agents. Educational leaders have a significant impact on the success of education and often have the ability to drive change (Saint Mary's University of Minnesota, 2021). Parents can also be advocates for their children's education (Saint Mary's University of Minnesota, 2021). Engaging students in their education also produces active and responsible young people who are invested in their future, therefore change agents for distance education (Akin et al., 2017). Alongside teacher voice, these change agents are important to consider for future research in the field of distance education.

Distance Education in Canada

Some of the educational challenges within Canada are due to the large land area that includes isolated and remote communities. Because of the large land area, many provinces and territories have had to look at distance education as a valid option for education. The province of Newfoundland and Labrador provide some of the first evidence of distance education being used before 1949. During this time a school on a railcar was created to serve children who lived in small, remote communities without schools but had access to railway tracks (Saqlain, 2013). There is also evidence that in 1987, senior high school courses were offered to students in remote and isolated communities within the province of Newfoundland and Labrador (Saqlain, 2013). COVID-19 has forced every province and territory to investigate and implement some form of distance education in K-12.

Some provinces, such as British Columbia, show evidence of combatting the challenges of distance education implementation by demonstrating strong direction in K-12 distance education growth. Correspondence branches within the provincial government of the province of British Columbia show evidence of support to grow distance education. The British Columbia

Ministry of Education (2010) has created two documents, *Standards for K-12 Distributed Learning in British Columbia* and *Standards for Digital Learning Content in British Columbia*, to support and guide educators in the online learning environment. Alberta schools were once supported by the Alberta Distance Learning Centre (ADLC) on behalf of the provincial government of Alberta (Edwardson, 2020). The ADLC provided grades 1-12 teacher resources and courses to fill gaps in student timetables (Edwardson, 2020). The ADLC, was defunded by the Government of Alberta and programming suspended after the 2020-2021 school year, moving the responsibility of programming to individual school districts (Edwardson, 2020). The Saskatchewan Government Correspondence School was established in 1925 but also no longer exists (Barbour & LaBonte, 2020c). The delivering of distance education to students has been left to individual school divisions since 2009 (Barbour & LaBonte, 2020c).

Distance education in Canada has experienced exponential growth over the past two decades (Archibald et al., 2020; Barbour, McLaren, et al., 2012; Barbour et al., 2013; de la Varre et al., 2014). Bates (2019) describes in survey results obtained from public post-secondary institutions in Canada there is an increase in acceptance of online learning since 2018. The first virtual schools in Canada were EBUS Academy (Barbour, McLaren, et al., 2012; Barbour, Siko, et al., 2012) and New Directions in Distance Learning, both in British Columbia in 1993 (Barbour, Siko, et al., 2012). The evolution of distance education has continued to change at a pace that does not necessarily keep up with provincial policy, technological support, and teacher professional development. Most institutions are moving forward with distance education, but not fast enough (Bates, 2019).

Barbour and LaBonte (2017) identify in the “State of the Nation: K-12 E-Learning in Canada,” that the total K-12 student population in Canada during 2016-2017 was approximately

5.1 million students. They also indicate that of this number of K-12 students, 5.4%, or 277,603 students, were engaged in distance education. The largest percentage of K-12 students reportedly involved in distance education are in British Columbia and Alberta. British Columbia has been a model for distance education in Canada and has a stable platform. Barbour and LaBonte describe how the legislative governance of *the School Act, 2006* and *the Independent School Act, 2006* from the province of British Columbia govern the operation of the distance education programs run in the province. These legislations provide a solid basis to establish distance education consistently throughout the province. This legislation consistency does not exist in every province, including Saskatchewan, thus increasing frustrations for educators.

Regulation of Distance Education

The prevalence of K-12 distance education programs continues to increase in Canada. Today, Barbour and LaBonte (2017) report that some students from all 13 provinces and territories participate in some form of K-12 distance, online, or blended learning activity. COVID-19 also forced every province to provide some form of distance education or supplemental learning as schools closed to students and staff during the first wave of the pandemic in March, 2020. Most of the provinces have district-based or provincial-based programs with the exception of the Atlantic provinces where provincial-wide programs are utilized, excluding Prince Edward Island which does not have a distance education program (Barbour & LaBonte, 2017). The Canadian Territories utilize distance education programs from other provinces, but the Yukon and Northwest Territories are developing pilot programs. The literature presents evidence of distance education programs throughout the country. This evidence also offers proof of disparity and irregularities from province to province.

Another challenge presented as the education system in Canada is regulated at a provincial, rather then federal level, there is no uniform approach to distance education across the country. Policies and practices related to education vary from province to province (Murphy et al., 2011) and each of the provinces and territories stakes out its own guidelines for virtual education (Davis, 2012). Provinces and territories differ in what they offer as well, as some offer on-demand online courses while other courses have specific virtual times; elementary age students are given opportunities to take online courses while other provinces and territories limit online course opportunities to high school students (Davis, 2012). This variety of approaches presents an opportunity for gathering diverse outlooks, as the provincial and territorial perspectives will be unique to each of the educational systems, including Saskatchewan.

The regulation that governs K-12 distance education is unique to each province and territory. Saskatchewan, along with Quebec and Newfoundland, does not have a meaningful legislative regulation set out by their governing Ministry (Barbour & LaBonte, 2017). Other provinces and territories have a combination of legislation, policies, agreements, and/or memoranda of understandings to guide regulation of distance education. The only jurisdictions that have legislation regulating their K-12 distance education are Nova Scotia, with a collective agreement signed between the Government of Nova Scotia and the Nova Scotia Teachers Union, and British Columbia (Barbour & LaBonte, 2017).

Distance Education Activity

Distance education has the potential to change the face of education. Countries that are progressive in change with respect to distance education can provide others with pathways to follow. In 2015-2016, Florida Virtual School (the largest virtual school in the United States) had 290,456 students taking online classes, while North Carolina Virtual Public School came in

second with 36,454 students (Gemin & Pape, 2017). There are successful distance education institutions established today that can provide examples for others to build a strong, successful educational program. K-12 distance education is fundamentally unique (Cavanaugh et al., 2004) and therefore stakeholders must review present activity to establish and improve opportunities that students can and will potentially receive.

The unique and transformative qualities of distance education in K-12 lie with the age of the learner. Cavanaugh et al. (2004) notes that young learners are still developing cognitively and will learn differently then adults as their ability to remember, problem solve, and learn independently is unique. In a meta-analysis conducted by Cavanaugh et al., they found careful design of online programming for K-12 students must be considered as younger learners have less internal locus control as compared to older students. The results of their analysis found that supervision, fewer and simpler instructions, reinforcement, frequent contact from the teacher, and scaffolding are all unique qualities to K-12 distance education that educators must be mindful of. These unique opportunities must be presented to stakeholders to provide more details about the education that is available to them.

Some provinces within Canada have progressed further along the distance education path than others. Alberta, for example, has significant supports in place to guide schools and teachers in developing a distance learning landscape. The Online Learning School and School Authority Leader Guide is a provincial document developed by Alberta Education to outline approaches to distance education, where and how distance education is offered, how to support student's success, starting and organizing a program, instructional design, and accountability (Alberta Education, 2019a). The document essentially highlights practices and policies to ensure students

are provided a safe, respectful, and nurturing online learning environment (Alberta Education, 2019a) consistently across the province of Alberta.

Daily Divide

One of the biggest opportunities of 21st Century learning is that activities that have historically tied a student to a particular place have become more accommodating, due to technology. The current state of education does not necessarily accept these accommodations. As described by Wiley and Hilton III (2009), everything from mobile phones that allow us to directly communicate wherever we have service, to wireless devices that allow us to search the Internet without being connected to a network cable, play a role in making education more accessible. They also explain how students have the ability to be more connected to people and content as data and content that was once unavailable to students is now freely available in real time at a reduced or no cost for connection. The trajectory of putting more and more technology into the hands of learners is set to continue due to competitive global markets (Traxler, 2018). Therefore, it is important for educational stakeholders to recognize the need for technology and harness the technological power that is in the hands of learners for the sake of education.

Many current K-12 classrooms are enhancing the daily divide by not encouraging the use of handheld devices such as cell phones and controlling Wi-Fi access (Anderson & McPherson, 2018) during class thereby removing instant educational access and accommodations. In the past, sets of encyclopedias would have been used, costing thousands of dollars, for students to gather information. These resources can now be found on the Internet at little to no cost to the student. Students are not always given real time access to resources such as this because of the daily divide. Instructional delivery is inconsistent and unfair due to the disparity of technology equipment available to students (de Marcellis-Warin et al., 2020). Many of the changes in uses

and applications of technology that we are seeing in our everyday life experiences are not embedded in K-12 learning.

Examples of daily divide frustrations can be found in our K-12 classrooms. The following is an example of an in-class experience of an elementary aged student, demonstrating the daily divide.

Jake, a student in Grade 5, rides the bus every morning for over an hour. He brings his iPad with him to entertain himself during this long trip to school. Once he arrives at school, he must keep his personal device in his locker as the school he is attending has a policy that does not allow students to use their home devices at school for a variety of reasons. The school's policy handbook describes a ban on personal devices as those devices can not be monitored for inappropriate behavior or cyber bullying. Using his personal device for school activities is also prohibited even though the school has access to wireless Internet and has a shortage of devices for students due to budgetary challenges. Students at Jake's school consume information through teacher directed instruction, school provided technology, and paper-based materials.

This student's problematic inability to utilize technology to access online learning at his fingertips is a common occurrence in K-12 education today, especially in our elementary schools. It is this example of a classroom environment that Jake has experienced that we can refer to as the daily divide, or the disconnect between lived experiences in the real world and the education he is receiving (Wiley & Hilton III, 2009). As compared to the digital divide, where different communities do not have the same level of access to the same level of technology (Barbour, 2007), the daily divide also discriminates in education, against people who have developed habits of using technology for information and communication due to its abundant access (Wiley & Hilton III, 2009). Students today do not think of technology as something that is

separate from their daily lives (Wicks, 2010). In fact, many learners experience anxiety when they are denied access to their personal devices (Anderson & McPherson, 2018).

K-12 learners are confident technology users, often more confident than their teachers (Wait, 2018). These same learners may have the confidence with technology, but they may be lacking the skill set to use this same technology as learners. Dian Schaffhauser (2018) completed a survey of more than 2,000 educators that found only 10% were confident to use higher-technology in their classrooms. As Maryville University (n.d.) states, advances in technology in education are on a steady pace. Technology is no longer an add-on and the world of K-12 education needs to recognize this and challenge the daily divide in order to remain relevant to learners at this level.

As students continue to challenge the daily divide, the digital lives of students are no longer separate realities (TEDx Talks, 2015). The presence of technology in the lives of students is important to understand if the current K-12 education system is to provide an education that is up to date with student culture. New generations of learners and their teachers, parents, superintendents, and administrators have varying ideas that describe the responsibilities of students in the digital world. Digital citizenship is a piece of K-12 education that must be addressed to improve the daily divide that hinders confidence in distance education for K-12 students. Just as students are taught the rules of society, they must also be taught the rules of the online/digital world and how to be safe and responsible technology users. Students may be comfortable in using technology, but they may not understand how to use it appropriately (Ribble, 2021).

Positionality Four

The daily divide is undoubtedly an experience happening in our schools today, although likely not one that is intended to be as hindering as it is. Are school polices creating larger digital divides? With change in practice, always comes change in policy. Is that policy keeping pace? It seems as students in today's classrooms increase in technology reliance, teachers are forced to manage this extra responsibility in an already stressful environment. On top of the social issues and support of school family dynamics, teachers are also forced to manage and monitor digital activity and devices. A task that is often overwhelming. The questions I ponder are, is it the teacher's responsibility to ensure technology devices from home are taken care of at school? Whose responsibility is it if those devices go missing? This responsibility is often put on the teacher whether the expectations are clearly stated in school handbooks. It appears the easy answer is to not allow home devices into classrooms. Is this type of decision playing a role in creating a larger daily divide? Yet, on the other hand, I also understand the benefits that allowing students to bring their own devices would provide. To me, it is a matter of positive over negative. Which one will cause the lesser amount of teacher stress?

We expect our teachers to wear many hats and by adding one more are we causing more stress? How do we better prepare our students, and parents, to understand their responsibilities when it comes to digital devices? Do students understand they impact their digital footprint every time they go online? I believe the answer lies within digital citizenship. I would like to see, and appreciate, digital citizenship being a large part of Saskatchewan curriculum as the digital world has such an impact on today's young students. An impact that is

likely not even fully understood at this stage as we are preparing students for a digital world that will likely change drastically before most students graduate from high school.

Digital Citizenship

Does increasing technology in K-12 classrooms pose potential risks to students? The answer is absolutely (Alhumaid, 2019). School divisions are responsible to mitigate these risks of increasing digital access in schools by developing learning content resources for teachers (Moon, 2018) to address digital citizenship. “Digital citizenship is the continuously developing norms of appropriate, responsible, and empowered technology use” (Ribble, 2017, para. 1). In U.S. schools teaching digital citizenship is a top priority as six out of ten teachers are teaching a topic of digital citizenship monthly (Wilkey, 2019). As the growing pace of students using mobile and personal devices, such as cell phones, laptops, Chromebook, and tablets, at home increases, the natural progression to accept these devices in a school environment is commonplace (Moon, 2018). Advocating for device management plans as opposed to banning devices in the classroom will help build an environment of successful distance education in K-12 (Wilkey, 2019).

It cannot be assumed that K-12 students understand the growing digital world. Students lack the skills to critically evaluate online information and the understanding that technology can distract their learning experiences (Wilkey, 2019). Personal devices are very difficult to monitor, as the province of Ontario demonstrates with the development of a ban where students can only use their personal devices during instructional time (Brown, 2019). In Saskatchewan, as L. Shaw (personal communication, July 24, 2019) describes, digital citizenship is a major concern that some schools are addressing by teaching digital citizenship, however the vast majority of teachers struggle as to where to begin. The lack of curriculum guidance for teaching digital

citizenship is one of the reasons why Saskatchewan Professional Development Unit (SPDU) are developing a media literacy/digital citizenship workshop this year (2019) with their e-learning cohort (L.Shaw, personal communication, July 24, 2019). The Saskatchewan Ministry of Education has published a policy planning guide (Digital Citizenship Education in Saskatchewan Schools) for schools to support instructional practices that will help students build digital citizenship skills using a K-12 continuum (Government of Saskatchewan, n.d.b). It is the responsibility of the schools to focus on what students can do as opposed to what they cannot do.

Schools that address the harms of the digital world by teaching digital citizenship help students to understand the potential dangers of the digital environment they are immersed in (Moon, 2018). Students have access to many devices and these devices often expose students to possible harms, security, and mental health pressures due to situations of cyberbullying, online predators, and negative digital reputations. Instances of cyberbullying and hate speeches increase online as grade levels increase (Wilkey, 2019) therefore teaching digital citizenship on a continual basis is important. Throughout K-12, students must be taught how to apply digital citizenship protocols, understand the norms of the Internet and social media sites, and recognize online manipulation (Moon, 2018) to empower students with thinking skills and strategies to evaluate what they find online. Developing self-awareness and self-regulation will help students to learn to manage their own technology use (Wilkey, 2019).

As Farmer (2010) notes, the growing amount of information students have access to doubles every two years in the digital world. Because of the amount of information, it is no longer about being able to get information into the hands of students, it is about getting the right information into their hands as well as teaching students how to do the right thing with the information. Farmer describes how teaching about technology is not enough. Learners must be

taught how to be responsible and ethical with the information they are receiving through technology. She also notes that 85% of 21st century jobs will involve technology. Digital citizenship must emphasize the need for lifelong education to prepare students for an uncertain tomorrow. We are preparing students for jobs that do not yet exist. Farmer explains that the lack of knowledge of educators themselves is the chief reason that technology is not used to improve learning. Distance education programs must work to ensure teachers are comfortable using technology in a tech-rich academic setting, not just on a personal level. Farmer stresses that distance education organizations need to recognize that learning about technology differs greatly then learning with it…the end verses the means.

Education in Saskatchewan

The Government of Saskatchewan (n.d.e) explains that in Saskatchewan, K-12 education is the responsibility of the Ministry of Education, authorized by the Minister of Education, and locally elected boards of education. The Government of Saskatchewan also notes the Government's Ministry of Education is responsible to establish the provincial curriculum in all subject areas of the educational system as well as distributing recommendations of the management of schools and school divisions. The local elected school boards then follow the regulations and guidelines set out by the Ministry of Education to manage the K-12 school system within their respective school divisions. Each of the local school boards has the ability to administer procedures to manage the educational plans that follow the Ministry of Education mandates. The Government of Saskatchewan writes that currently, there are 27 school divisions in Saskatchewan including 18 public school divisions, eight separate school divisions, and one Francophone school division. Many of these school divisions foster learning environments in rural areas of Saskatchewan, lead by goals set out by individual school divisions.

Rural School Challenges

Rural Saskatchewan poses educational challenges that are different from their urban counterparts. A key issue in rural Saskatchewan is having access to quality education (Hall & Olfert, 2015). Being part of a consistently declining rural population in Saskatchewan (Hall & Olfert, 2015) has rural schools looking at how to counteract these challenges. Rural schools, already challenged by the daily divide, are facing challenges of geographic isolation, difficulty attracting and retaining quality teachers, smaller number of students, and financial constraints (de la Varre et al., 2014). With population distribution likely to continue in and around urban areas, implications for government services and economic development, such as fewer schools, will continue in rural areas (Hall & Olfert, 2015). Access, distance, and digital connectivity between communities continues to pose challenges for rural residents of Saskatchewan. The rural to urban redistribution of population is expected to continue in Saskatchewan, therefore school closures will continue to accompany this population decline as education is often dependent upon the size of population (Hall & Olfert, 2015).

Attracting teachers and professional services staff to rural areas is also a challenge. It is especially difficult to attract specialized teachers and therefore, due to small student population, difficult to offer provincially mandated curriculum (Barbour, McLaren, et al., 2012). The small populations of some rural Saskatchewan schools limit the number of teachers available in a traditional classroom. School divisions are also experiencing pressure in retaining and recruiting professional services staff, such as speech and language pathologists (Moniuk, 2013). However, the lower student populations in rural areas of Saskatchewan create close, long-term relationships with teachers resulting in a strong sense of community (Barbour, McLaren, et al., 2012; de la Varre et al., 2014). These strong communities rely on innovative practices, such as

distance education courses, in order to access particular courses (de la Varre et al., 2014). Without looking past the traditional educational offerings these rural students are left falling short of what they require from the educational system in Saskatchewan.

The financial constraints rural school divisions in Saskatchewan are facing are somewhat out of their hands and reliant on the economy of the province. Perrins (2016) describes in his report a new funding model was implemented in Saskatchewan for the 2012-2013 school year and is referred to as the PreK-12 Funding Distribution model. He describes how the model moved away from providing funding on a per-student rate and considers the operating costs of school divisions' functions (for example instruction, administration, plant operations, etc.).

Moniuk (2013) presented a report based on responses from Saskatchewan school divisions to a survey from the Saskatchewan School Boards Association (SSBA) regarding education equity following the release of the new Distribution Model. His survey found that 95% of Saskatchewan school divisions stated they had concerns with the new Distribution Model proposed by the Government of Saskatchewan. He described concerns that include adequate funding, supports for learning, locally determined terms and conditions, school-based support, transportation, and adjustment factors (such as employee salaries). He also described how school divisions in Saskatchewan were concerned that the dispersion of students was not being recognized adequately throughout the province. For example, the services provided to a school with a population of 500 students is different than when those students are located in an area where they are a significant distance apart with small numbers within the school. School divisions recognize the new funding model does not address these differences for rural students. Moniuk points out that smaller, rural school divisions are the most severely impacted as they

experience cuts in programming, student supports, staff, and services. Yet another blow to the rural schools of Saskatchewan.

Truth and Reconciliation in Saskatchewan

The First Nations population in Saskatchewan is an important part of the distance education discussion. The First Nations population (roughly 160,000) represents 16% of the provincial population (Hall & Olfert, 2015). This noteworthy population of First Nations people are significantly younger at 34% compared to 17% under the age of 15 years old, demonstrating less education then the rest of the population (67% verses 87% with high school completion) (Hall & Olfert, 2015) displaying a current and future need for equitable educational opportunities. A report from the C.D. Howe Institute in 2016 revealed only four in ten Indigenous youth living on reserve graduated high school (The Globe and Mail, 2017). Approximately 34% of the First Nations population live on-reserve while 8% live off reserve in rural and small urban areas (<10,000) and 57% live in large urban areas (>10,000) (Hall & Olfert, 2015). The on-reserve socioeconomic status of the First Nations population is lower than that of the off-reserve population, and improving better access to educational opportunities would help to develop the socioeconomic outcomes for the First Nations population (Hall & Olfert, 2015).

The First Nations population has suffered greatly throughout the history of the province of Saskatchewan, as well as nationwide. The tragedy of the Indian Residential Schools has had a profound affect on generations of Indigenous (First Nations, Inuit, and Metis) people and was a grave injustice to their people. In 1883, Prime Minister Sir John A. Macdonald passed a law that established a system of residential schools where he believed that in order to educate and civilize Indigenous children properly they had to be separated from their families, banned from speaking

their native language, and outlawing sacred ceremonies and traditions (The Globe and Mail, 2017). At least 150,000 Indigenous children attended one of the 139 residential schools across Canada where they were subject to verbal, physical and sexual abuse, as well as harsh living conditions including inadequate diet and medicare where disease and death were eminent dangers (MacDonald & Hudson, 2012). The harsh legacy of these schools continues today as many Indigenous people face high rates of poverty, insecurity, mental and physical health issues, and suicide (The Globe and Mail, 2017).

Coupled with residential schools, many First Nation communities have experienced barriers that have created negative impressions as to the value of education (Pavlika, 2017). The many barriers, such as ill-equipped teachers since teacher training often does not prepare many to teach Indigenous students (McCue, 2018), how to use distance education programs, the absence of culturally relevant content in educational programming (Philpott et al., 2009), geographic isolation, lack of pedagogical support, and lack of professional development, have prevented First Nation communities from accessing high quality educational services (Pavlika, 2017). One solution to reduce these barriers is distance education (Pavlika, 2017). Distance education can help to provide First Nations students with access to high quality education.

Low educational attainment is a major barrier for Indigenous peoples in realizing higher incomes (Pavlika, 2017). In a study by Philpott et al. (2009), they present the Office of the Auditor General estimates that it will take 27 years to reduce the achievement gap between Indigenous and Non-Indigenous students in Canada. This is multiple generations of Indigenous students that will continue to be impacted. The study also notes First Nation communities have identified interest in distance education programs and this interest continues to grow. Utilizing distance education will provide many benefits to First Nation students. Described within the

study, Philpott et al. state how cultural preservation, increased access to quality education, connection to specialized instructors, reduced achievement gaps, and community development will have a positive impact on the First Nation communities.

The Truth and Reconciliation Commission of Canada (2015) (TRC) called upon the provincial governments, as well as educational institutions, to address the needs of the Indigenous populations of Canada. The TRC produced a document outlining 94 Calls to Action in order to advance the process of reconciliation of the First Nations people of Canada and redress the legacy of residential schools. One of Prime Minister Justin Trudeau's election promises was to address every Call to Action described by The Truth and Reconciliation Commission of Canada (The Globe and Mail, 2017). Education is an area of focus within the Calls to Action. Distance education is a valued resource to provide opportunities to meet the Calls to Action.

The Truth and Reconciliation Commission of Canada (2015) makes the following calls to action in the area of Education for Canada's First Nations people:

> 6. We call upon the Government of Canada to repeal Section 43 of the *Criminal Code of Canada.* (p.1)
>
> 7. We call upon the federal government to develop with Aboriginal groups a joint strategy to eliminate educational and employment gaps between Aboriginal and non-Aboriginal Canadians. (pp.1-2)
>
> 8. We call upon the federal government to eliminate the discrepancy in federal education funding for First Nations children being educated on reserves and those First Nations children being educated off reserves. (p.2)

9. We call upon the federal government to prepare and public annual reports comparing funding for the education of First Nations children on and off reserves, as well as educational and income attainments of Aboriginal peoples in Canada compared with non-Aboriginal people. (p.2)

10. We call on the federal government to draft new Aboriginal education legislation with the full participation and informed consent of Aboriginal peoples. The new legislation would include a commitment to sufficient funding and would incorporate the following principles:

i. Providing sufficient funding to close identified educational achievement gaps within one generation.

ii. Improving education attainment levels and success rates.

iii. Developing culturally appropriate curricula.

iv. Protecting the right to Aboriginal languages, including the teaching of Aboriginal languages as credit courses.

v. Enabling parental and community responsibility, control, and accountability, similar to what parents enjoy in public school systems.

vi. Enabling parents to fully participate in the education of their children.

vii. Respecting and honouring Treaty relationships. (p.2)

11. We call upon the federal government to provide adequate funding to end the backlog of First Nations students seeking a post-secondary education. (p.2)

12. We call upon the federal, provincial, territorial, and Aboriginal governments to develop culturally appropriate early childhood education programs for Aboriginal families. (p.2)

14. We call upon the federal government to enact an Aboriginal Languages Act that incorporates the following principals:

i. Aboriginal languages are a fundamental and valued element of Canadian culture and society, and there is an urgency to preserve them.

ii. Aboriginal language rights are reinforced by the Treaties.

iii. The federal government has a responsibility to provide sufficient funds for Aboriginal-language revitalization and preservation.

iv. The preservation, revitalization, and strengthening of Aboriginal languages and cultures are best managed by Aboriginal people and communities.

v. Funding for Aboriginal language initiatives must reflect the diversity of Aboriginal languages. (p.2)

16. We call upon post-secondary institutions to create university and college degree and diploma programs in Aboriginal languages. (p.2)

63. We call upon the Council of Ministers of Education, Canada to maintain an annual commitment to Aboriginal education issues, including:

i. Developing and implementing Kindergarten to Grade Twelve curriculum and learning resources on Aboriginal peoples in Canadian history, and the history and legacy of residential schools.

ii. Sharing information and best practices on teaching curriculum related to residential schools and Aboriginal history.

iii. Building student capacity for intercultural understanding, empathy, and mutual respect.

iv. Identifying teacher-training needs relating to the above. (p.7)

My research will be a contribution towards reaching aspects of the TRC's Calls to Action through the use of distance education in the K-12 education setting. It is the responsibility of every educator in the province of Saskatchewan to ensure the Calls to Action are incorporated into their classrooms. "We are all treaty people" (para.4) emphasizes that both Indigenous and non-Indigenous people have treaty rights and responsibilities (Office of the Treaty Commissioner, 2020). Technology has the ability to provide distance education opportunities to Indigenous people throughout all parts of Canada. Development of Indigenous curriculum, sharing information and cultural understanding, and providing teacher development opportunities online are only a few ways technology can work to evolve and meet the expectations of the TRC's Calls to Action. Distance education is a key strategy in the response to addressing equity in K-12 education for First Nations communities.

Frameworks of Distance Education

What is knowledge? What is the value of knowledge? The study of epistemology objectifies these questions (Iacob et al., 2015). It is my belief that personal knowledge often develops from experience, hence knowledge and experience are closely related. As John Dewey, a progressive theorist, pragmatist, philosopher, and American educator, believed children learn best when they interact and are actively involved in their environments (Williams, 2017). Dewey

believed, as do I, that learners need to engage directly with their environments. This approach of learning by doing and active participation is often referred to inquiry-based learning (Buchanan et al., 2016). Teachers should be facilitators and guides in the classroom with the responsibility of giving students opportunities to discover and be independent learners (Ernst et al., 2017). Dewey strongly believed in a balanced approach to education where teachers, students, and content were given equal importance in the equation of learning where children learn to problem-solve in a community (Williams, 2017).

From an ontological perspective, it is my belief that truth is constantly changing. As we strive to find new answers to our changing world, we are discovering new truths and realities. My belief in social justice, human rights and equality, lead me to a relativist ontology. According to the Mirriam-Webster (n.d.) Dictionary definition of relativism, knowledge is relative to the mind and knowing and is dependent on the individual who holds the knowledge. The common relativist sayings of "That's true for you but not for me" or "Beauty is in the eye of the beholder" are reflective of my assumptions about the nature of reality. Realities are socially based and often shared among many individuals (Guba & Lincoln, 1994).

Pragmatism looks to solve practical problems in a practical world (Cohen et al., 2011). The K-12 educational system is a necessary part of the practical world. The integration of distance education into K-12 education in Saskatchewan goes beyond traditional lesson planning or instructional design. Utilizing researched frameworks to build the distance education platform in Saskatchewan is an important part of its pragmatic success. Papanikolaou et al. (2017) stress the importance of synthesizing CoI and the TPACK framework to promote the practice of online and blended learning for teachers in Saskatchewan as both frameworks are recognized and supported by research. However, they also note there is little research on how combining CoI

and TPACK support online and blended learning practice. CoI functions as a framework for teachers to organize their interaction (Papanikolaou et al., 2017), while TPACK provides an avenue for teachers to design learning activities that foster appropriate types of knowledge. These frameworks work simultaneously in K-12 distance education in Saskatchewan, although understanding of CoI and TPACK is not well developed.

Community of Inquiry (CoI)

John Dewey believed education should be a journey of experiences, not memorization of mindless facts (Kennedy, 2019). The CoI, inspired by Dewey and a constructivist approach (Garrison, 2007), has gained validity over the past two decades as it has been submitted to empirical testing and used extensively as a blueprint for online learning (Papanikolaou et al., 2017). The fundamental elements of a successful online learning experience, namely, teacher presence, cognitive presence, and social presence, are identified in this model (Majeski et al., 2018). A fourth presence, emotional presence, has also been identified as emotions have been recognized as impactful in the experience of online learning (Cleveland-Innes & Campbell, 2012). The interrelationships of these elements are crucial for a successful online learning experience. The CoI assumes that learning takes place within a community through the interaction of teacher presence, cognitive presence, social presence (Garrison et al., 1999), and emotional presence.

The social presence is defined as the “ability to project one’s self and establish personal and purposeful expression” (Garrison, 2007, p. 63). Ultimately, a learner’s social presence is his or her ability to project their personality (Garrison et al., 1999). Within the social presence exists three aspects: effective and open communication, and group cohesion (Garrison, 2007). Because distance education is not in a face-to-face environment, social presence is very important to help

build relationships (Majeski et al., 2018) which, in turn, impacts learning in a community of learners. As Garrison (2007) presents, effective and open communication are necessary to establish a sense of community. The social presence required in an online learning environment create conditions for inquiry and quality interaction which encourage a collaborative learning environment (Garrison, 2007).

The cognitive presence helps to describe how a learner explores, constructs and negotiates meaning (Garrison, 2007). Within this presence, learners define a problem, identify and explore information, understand and connect information, and finally, test possible solutions (Garrison, 2007). Without a strong social presence, the cognitive elements do not develop in a learner thus demonstrating the connection between the presences (deNoyelles et al., 2014).

The teacher presence helps to establish the CoI. Teacher presence is a teacher's ability to create, implement, facilitate, and monitor learning to achieve goals (Anderson et al., 2001). Elements of instructional design, facilitation of learning, and direct teaching (Garrison, 2007) influence the teacher presence. Within this presence, establishing course content, scheduling, assignments, monitoring of students, managing interaction, determining learner needs, and providing appropriate guidance and information are all important (Majeski et al., 2018). Teacher presence is a significant indicator of student satisfaction and a sense of community (Garrison, 2007).

Lastly, the emotional presence cannot be ignored in the learning environment as emotions exist in all human experiences. As Cleveland-Innes and Campbell (2012) indicate, emotion and learning have received little attention in the development of educational instructional models until recently. They explain how positive emotions (joy, enthusiasm, excitement, etc.) and negative emotions (fear, anxiety, stress, guilt, etc.) are demonstrated in online learning

environments whether it is within designing instruction, teaching, or learning. O'Regan (2003) presented a study that found students expressed emotions in relation to various aspects of online learning including design and organizational issues, cognitive issues, social issues, management, and technology. Educators must learn how to best integrate and control emotions in distance education environments as a support of learning through thinking, decision making, stimulation, and directing (Cleveland-Innes & Campbell, 2012).

As the Government of Saskatchewan (2015) states, children learn in holistic ways. The Government of Saskatchewan describes how learning is not separated into categories as everything that is learnt builds on previous knowledge, learning, and experience as knowledge is constructed by understanding the world around them. Social presence, cognitive presence, teacher presence, and emotional presence all work together to impact the online learning environment.

Technological Pedagogical and Content Knowledge (TPACK)

TPACK is a framework that attempts to identify the knowledge teachers require for integrating technology into their teaching (Di Blas, 2016; Koehler, 2012; Papanikolaou et al., 2014). First introduced by Matthew Koehler and Punya Mishra in 2005, TPACK focuses on explaining the knowledge a teacher requires to effectively teach with technology (Di Blas, 2016). Koehler and Mishra's work was based on Lee Shulman's knowledge base of teaching, including the construct of pedagogical content knowledge (Shulman, n.d.). This framework demonstrates three primary forms of knowledge: Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK). These forms then overlap and intersect creating four more components: Pedagogical Content Knowledge (PCK), Technological Content Knowledge

(TCK), Technological Pedagogical Knowledge (TPK), Technological Pedagogical Content Knowledge (TPCK).

TPACK envisions teachers as designers and recognizes the challenges of combining technology, pedagogy, and content. It is no longer enough for teachers to be equipped with simply adequate knowledge of technology to synthesize their technology skills with their teaching methods (Papanikolaou et al., 2017). As research continues to support TPACK, it is evident there is no single combination of content, technology, and pedagogy that can be applied for every teacher as every context is unique (individual teachers, grades, content, culture, demographics, etc.) (Koehler, 2012). As Wicks (2010) describes, the holistic approach of the TPACK framework helps to be able to affirm the following questions:

1. Does the teacher know the content?
2. Does the teacher know how to teach the content?
3. Does the teacher know how to use the technology to teach the content effectively?

As Koehler (2012) describes, each area of the TPACK framework acknowledges a primary piece of what knowledge is required of teachers in order to create a successful distance education platform: CK – Teacher knowledge about the subject matter they are to teach; PK – Teacher knowledge about the processes and methods of teaching and learning, understanding how students learn; TK – Teacher knowledge on how to work with technology, tools, and resources. As the rapid growth and evolution of digital technology continues, the use of technology is no longer isolated but an inseparable interweaving of content, pedagogical, and technology knowledge (Papanikolaou et al., 2014). Teachers and leaders must capitalize on the TPACK framework to improve the online learning environment for learners.

Distance Education in Saskatchewan

Distance Education Benefits

Many students who are exploring the option of distance education have challenges that restrict them from accessing a traditional brick and mortar school. Distance education learners may be those who are in need of credit recovery, have multiple social commitments, are homebound, are hospitalized, are incarcerated, are employed, are uncomfortable in traditional settings, or live in rural areas (Harris-Packer & Segol, 2015). Most recently, COVID-19 has thrust learners into the world of distance education unexpectedly. Distance education lends these students an opportunity to have access to an equal education. In some cases, students experience difficulty in a traditional educational environment, perhaps due to in-person bullying or social anxiety and require another form of learning. A study by Thomson (2010) found online courses gave students in grades 3-12 more individualized and differentiated learning experience than a traditional face-to-face course. Distance education is an avenue to provide Saskatchewan learners with a beneficial, alternative to traditional education.

Distance education provides learners with benefits that help strengthen the learning experience. The following examples demonstrate studies that investigated benefits of using distance education. Jones (2009) conducted a study to investigate the impact distance education had on a small, rural Canadian community on Hornby Island in British Columbia. The case study concluded that distance education had a positive impact on the resident's quality of life, as the high school students could live at home and could remain all year round rather than moving to another community. Students did not have to move to other communities to fulfill their education due to the access to distance education. The positive effect on young families in the case study was also reflected as the threat of closure of their low-enrollment community school was

mitigated. The study concludes that as the school provided the internet facilities, extensive daily travel was reduced for families, and parents who were homeschooling their children could also benefit.

In a study conducted by Werth, Werth, and Kellerer (2013) investigating the impact of blended learning on students and teachers in a rural state (Idaho), researchers were able to identify a wide range of benefits for students, school divisions, and the state itself. A survey sent electronically to 627 teachers in the state of Idaho identified benefits ranging from course availability to cost reduction. The benefits for students identified by the research team from Northwest Nazarene University included an increase in selection of quality courses, flexible schedules and length of courses, access to student-centered faculty, extension of learning into the digital world 24 hours a day, access to dual credit and advanced placement courses, and opportunities for early graduation and credit recovery. Harris-Packer and Segol (2015) also describe the benefits of distance education to increase student motivation, expand educational access, and an increase of student choice.

Online learning environments were proven to provide substantial benefits to school divisions as well. As Werth, Werth, and Kellerer (2013) identified, school divisions were able to add more course availability, increase access to highly qualified teachers, add advanced placement and dual credit opportunities, increase opportunities for credit recovery, alleviate scheduling conflicts, and reduce cost for homebound students. As these benefits obviously have a positive impact on students, they significantly impact the school divisions offering the online learning environment.

As for the state of Idaho, the benefits of the online environment continued. Werth et al.'s (2013) research demonstrated benefits through providing school-choice options for students and

equity in curricular offerings to all students in the state. They describe that not only are the students being provided the most advanced technology with the best instructional practices, but an established infrastructure for e-learning was beneficial for all school systems. As noted in the study, Idaho universities were also proven to be a strong partner with school divisions as dual credit opportunities were beneficial as well. Lastly, the study explained how teachers were found to benefit from the opportunity to complete online professional development which increases the timeliness of training and a reduction of travel costs.

Distance Education Challenges

To improve distance education, we need to understand the myths and challenges associated with distance education. The growth of technology and distance education has outpaced the updating of education policies (Wicks, 2010), thereby creating a challenging atmosphere where education sees out-dated policies from province to province, and division to division. “In an age of Google, education based upon rote memorization of material will fail children miserably” (Winthrop et al., 2016, p. 3). The online learning environment changes at such a pace that trying to make learning online fit with older, more traditional educational practices are no longer possible.

The topic of funding for education is a constant part of conversations in K-12 environments and even more so regarding the online environment. Funding is provincially provided and out of the control of school divisions in Saskatchewan. During the 2017-2018 school year, education funding in Saskatchewan was cut by 54 million dollars by the Saskatchewan Ministry of Education (CBC News, 2018). From this, school divisions faced challenges of cutbacks in areas including, but not limited to, the number of teachers and support staff, infrastructure, and technology. Creating an innovative distance education environment

requires a financial commitment that is difficult to develop in a climate of reduced educational funding.

Another challenge identified is that of access to technology (Wicks, 2010). Students who participate in distance education require access to a computer, basic software, and the Internet to have the minimum opportunity to succeed. Educators must ensure the digital divide is addressed for all students, including students from lower income levels, those living in rural areas, ethnic groups, and students with disabilities, to ensure an equal opportunity for education.

Distance education must be more than simply taking the traditional classroom and putting it online. In order for distance education to be effective, it must transform education and the learning process (Wicks, 2010). School divisions and schools in Saskatchewan will need to invest in professional development for teachers and re-think technology policies that prohibit students from using current technology, thereby decreasing the daily divide. Education must look at technology as being a part of the daily lives of students and not a separate entity. Understanding the challenges faced by our rural K-12 students will provide useful information on how to increase educational opportunities and move education forward with a better understanding of how distance education may help to overcome these challenges.

Lack of Research

Research in the area of distance education is largely focused on higher education and adult education. One of the biggest difficulties in examining distance education is the lack of research in K-12 education (Murphy et al., 2011). The lack of scholars focused in this area also poses challenges as the research that does take place is lacking in depth (Barbour et al., 2013).There is a scarcity of research examining high school distance education, and the research base gets smaller yet when examining elementary education (Farmer & West, 2019; Rice, 2006).

It is important to caution against comparing K-12 students to adult learners when examining the existing research. K-12 learners present different fundamental characteristics than their adult counterparts, and are still developing necessary skills (Rice, 2006). As distance education grows to become a more acceptable way to expand educational opportunities into K-12 rural Saskatchewan, further research is needed to support this field.

Much of the research focusing on distance education is concentrated on the United States. There are almost no examples of Canadian K-12 distance education in the literature (Archibald et al., 2020). Even though Canada has a longer history of distance education than the United States, the amount of published researched focused on Canadian distance education is very limited as compared to the United States (Barbour, McLaren, et al., 2012). Although the United States leads the way in research of distance education, rural K-12 focus still has little research as most research in online learning has involved college or adult learners, and even less work with rural schools (de la Varre et al., 2010).

Distance education must be given the respect it deserves in the research field as it continues to grow in demand in education. Even though distance education has increased over the last 20 years, there is a lack of studies in online instruction in the K-12 setting (Harris-Packer & Segol, 2015). Current scholars need to focus their research in this area as the current literature does not provide a strong basis for K-12 distance education. Even though K-12 distance education in Canada has a long history, the amount of literature published about distance education in Canada is limited (Barbour, McLaren, et al., 2012), and relatively unchartered territory.

Chapter 2 Summary

As demonstrated in this review, literature exists to support the need to examine the current state of K-12 distance education in Saskatchewan. The existing literature suggests that Saskatchewan is lagging other provinces and territories. While educators note the benefits of distance education, there are gaps involving the rural K-12 environment to extend learning opportunities to those students. This study addresses those gaps. COVID-19 has forced hundreds of teachers into a world of distance education, of which many of those teachers are not properly trained to do so. The barriers of the rural divide, the digital divide, and the lack of professional development cannot be ignored. Knowledge of how to address what front-line educators are experiencing and the barriers presented in distance education in Saskatchewan is overdue. By triangulating the perceptions and concerns of teachers in the field of K-12 Saskatchewan schools with my research field notes and personal positionality, this study provides an opportunity to highlight areas of concern using FFA and develop an action plan to create an informed approach to change.

Chapter 3: Methods

This study employed an exploratory qualitative study research design, a design that in its broadest sense investigates a problem that is not clearly defined (*Exploratory Research: Definition, Methods, Types and Examples*, 2020). I explored how Saskatchewan K-12 educators perceived their experiences in distance education during the COVID-19 pandemic. In greater detail, I employed insider action research as a tool for positioning myself in between theory and practice (Casey, 2012). Data collected through email interviews, field notes, and personal positionality was analyzed using FFA to identify strengths and weaknesses of the current state of distance education in Saskatchewan. The previous two chapters provided an overview and background of the problem being explored and presented the literature supporting the study. Chapter three continues with a focus on the qualitative research method, insider action research, and my pragmatic assumptions that present a relativist approach to the study. The research design is explained throughout this chapter which includes: research methods, theoretical perspective, research questions, data collection, participant selection, recruitment process and characteristics, data collection methods and analysis. This chapter concludes with a discussion on the ethical considerations of the study.

Exploratory Qualitative Research

Borg (1963) regards research as the most successful discovery of truth as it combines both experience and reasoning (as cited in Cohen et al., 2011, p. 4). The goal of this study was to use an exploratory qualitative approach to combine both experience and reasoning to create an understanding of the current state of K-12 distance education in Saskatchewan during the COVID-19 pandemic. An exploratory qualitative approach to this research is most appropriate as

the data and information collected primarily documented human experiences (Saldana, 2011) in the field of K-12 distance education.

Silverman (2012) describes qualitative methodology as research "which tries to use first-hand familiarity with different settings to induce hypothesis" (p. 37). Qualitative research uses a naturalistic approach where the researcher seeks illumination, understanding, and extrapolation of a situation (Golafshani, 2003). Good exploratory qualitative research can help shed understanding on a situation where detailed and enriched data can be collected directly from the participants (*Exploratory Research: Definition, Methods, Types and Examples*, 2020). Qualitative research often focuses data on small numbers of people, yet provides a great deal of detailed and rich information (Cohen et al., 2011). In this way, qualitative research provided me with an appropriate method to examine and identify the experiences and views of Saskatchewan K-12 public school educators and how their distance education experiences have been shaped. By triangulating the qualitative data gathered using educator perceptions, field notes, and personal positionality, I support my findings are not simply an artifact of a single method of data collection (Bowen, 2009).

Exploratory qualitative research provided me with several advantages. As supported by QuestionPro's *Exploratory Research: Definition, Methods, Types and Examples* (2020) I had flexibility and the ability to adapt to change as my research proceeded. As a pragmatic researcher, I was willing to change my direction subject to revelations made during the research process. Also endorsed by QuestionPro, exploratory qualitative research can be executed at a low cost. Education is an area in Saskatchewan that struggles financially therefore exploratory qualitative research provided me an opportunity to collect interactive data within a reasonable budget. QuestionPro describes how (Email) interviews are a qualitative research method that

give meaningful insight into research questions. This research method was used to collect information directly from educators in Saskatchewan. Finally, exploratory research is also described to be able to help me lay a foundation for future research in the area of K-12 distance education. K-12 distance education is almost non-existent in Canadian literature (Archibald et al., 2020) therefore it is important for me to provide an opportunity for future research.

Insider Action Research

In greater detail, insider action research was used alongside an exploratory qualitative approach. I had a personal desire to change what it is I saw. It became apparent very quickly that I had to identify the existing state of distance education in K-12 education to influence change. As described by Casey (2012), insider action research allowed for me to increase my awareness of the current state of distance education, magnified by COVID-19. Once aware of the current state, action items could be developed and envisioned to improve K-12 distance education in Saskatchewan.

Kurt Lewin is not only well known for his development of FFA (Toves et al., 2016), he is often referred to as the originator of action research (Adelman, 1993). As Adelman (1993) describes, Lewin's scientific pragmatic approach emphasized that action research can inform social action. Lewin's quote, as presented by Adelman, states, "No Action without research. No research without action" (p. 8) summarizes the importance of a systematic enquiry in the quest for effectiveness.

The cyclical nature of insider action research is based on Lewin's (1946) concept of a, "cycle of planning, action, and fact-finding about the result of the action" (p. 38). As a researcher, I conducted email interviews and gathered data to consider possible action plan items. I also used field notes to preserve my "insider's voice" (Casey, 2012, p. 223). Post data

collection, I reflectively analyzed the data collected from Saskatchewan public school K-12 teachers allowing me to develop further action plan items that could be applied in the future to improve K-12 distance education in Saskatchewan. As Lewin recommends, the future action plan items should be monitored, progress regularly reviewed, and evaluated on effectiveness or new problems developed (Adelman, 1993). Due to the COVID-19 pandemic many things were out of my control. At the time of the research, it was not the time or the place to implement the complete cyclical nature of insider action research within an already stressful time. The action plan items created lays the groundwork for future insider action research.

Theoretical Perspective

Identifying positioning and assumptions in research can be compared to the metaphor of an iceberg, as presented by Dave James, Director of Economic and Social Research Wales Doctoral Training Centre (WalesDTP, 2015). James describes how only 10-12% of an iceberg is visual on the surface and the deeper you go below water, the harder it is to see. As James' metaphor describes, these complex research terms are not separate things but are locked together, with only a small portion of the research belief exposed above the surface thus being methods. Methods are clearly described, therefore relatively easy to see on the surface. As in the case of the iceberg, the majority of the system is hard to see below the surface, thus epistemology, ontology, and methodology. James further notes how methodology, describing choices made to create an approach to the study, is just below the surface, making it a little bit harder to see. Deeper in the iceberg is epistemology (what is worth knowing) and ontology (any debate about what it is to exist). He describes how epistemology and ontology are always there but harder to see. One of the goals of this research is to present an in-depth understanding of the perspectives of K-12 educators in Saskatchewan by using the iceberg metaphor. Through a relativist ontology

lens, where reality is socially based and often shared among many individuals (Guba & Lincoln, 1994), educators in Saskatchewan hold varying degrees of knowledge created by their experiences. As these educators build their knowledge based on their experiences, how they perceive the world around them is dependent upon their perceptions of their experiences (Cohen et al., 2011).

I completed descriptive, practitioner-research with a goal to identify areas to improve practice in K-12 distance education. The need for an accommodating research paradigm, or a combination of, that can play a role in guiding interpretation of my research was valuable. One-dimensional constructs in educational research can be limiting to the highly complex system of education.

I framed my research using pragmatism. Pragmatism is an approach that has the ability to use the strengths of one methodology to complement the weaknesses of another and maximizing the inquiry outcomes (Kalolo, 2015). Pragmatism argues that there are multiple versions of the truth and looks to solve practical problems in a practical world (Cohen et al., 2011). I am seeking the intersubjectivity of an educator's experiences in reference to distance education experiences. When researching, we need to find solutions to practical problems. In education, a necessary part of the practical world, we do not have the luxury to wait many years between research and outputs where what works today may not work tomorrow. Using our common sense when working to solve problems and moderate philosophical divide (Johnson & Onwuegbuzie, 2004) seems the most relevant and sensible in a rapidly changing world of education. The end goal is to find a practical solution.

Pragmatism allows for an open door methodology and does not require me to be "a slave to methodological loyalty" (Cohen et al., 2011, p. 23). Pragmatism endorses eclecticism as a

useful way to gain knowledge of the world (Johnson & Onwuegbuzie, 2004). John Dewey, the leading philosopher of pragmatism, has had a strong influence on the world of educators in Canada. In 1916, Dewey published *Democracy and Education*, advocating for the child to be placed at the center of the classroom (Hansman, 2016). This document was used by the Department of Education in British Columbia in 1928, and again in 1935, to emphasize play-based learning (Hansman, 2016). Dewey argued that learning can only occur when connected to the learners goals and interests (Garte, 2017). Dewey's significant influence on education in K-12 Saskatchewan is evident through the pragmatic nature of this research.

The goal of this research was to uncover the current state of the field of K-12 distance education in Saskatchewan. I believe that different theories and perspectives can be useful to gain a better understanding of the problem presented (Johnson & Onwuegbuzie, 2004). As a pragmatist, the importance of answering my research questions in full, from various ranges of data, is imperative. I would much rather meet the needs of my research questions than stay loyal to a methodology simply because I am labelled as one.

Research Questions

Developing from the purpose statement, my qualitative research questions needed to be broad and open to unexpected findings to enable a thorough exploration of the problem (Korstjens & Moser, 2017). Keeping in mind a comparison by Versuchuren, a social scientist (as cited in Vandenbrouche and Pearce (2018):

> …a researcher is like someone who has lost her wristwatch on the beach and returns to search for it. She knows what part of the beach to look, she can describe her wristwatch in detail, and once she has found it, she knows that this is the watch she was looking for (p. 256).

My primary exploratory research question is: How do public school educators in Saskatchewan K-12 schools perceive the state of distance education in the province during the first wave of the COVID-19 pandemic? The purpose of this question was to explore the experiences and perceptions of educators experiencing distance education in Saskatchewan during a pandemic. The following sub-questions will also guide the research study:

1. What are the positive/valuable experiences of public educators in K-12 distance education in Saskatchewan during the first wave of the COVID-19 pandemic?
2. What are the barriers public educators in K-12 distance education in Saskatchewan are facing during the first wave of the COVID-19 pandemic?
3. What are possible steps for development that can improve access and opportunities within the formal education system for distance education in Saskatchewan?
4. What are possible steps for future research that can improve access and opportunities within the formal education system for distance education in Saskatchewan?

Participant Selection

Participant selection for the perception of educators occurred using convenience sampling. Considered to have numerous advantages for research, convenience sampling involves choosing a sample from those the researcher has easiest access to and continuing the process of sampling until the required sample size are obtained (Cohen et al., 2011). I had easy access to participants as I am currently a teacher in Saskatchewan. Participants of my research were from across Saskatchewan as convenience sampling participants are generally from the same geographical area (Emerson, 2015). Participant inclusion criteria included:

1. Educators actively involved in K-12 public school teaching in Saskatchewan.
2. Educators who hold a bachelor's or master's degree in Education.

3. Educators who participated in providing supplemental learning during the first wave of COVID-19 (March-June 2020).

The sampling frame of participants was predetermined due to qualification requirements of Saskatchewan public school teachers. As the Saskatchewan Teachers Professional Regulatory Board (n.d.) states, According the Section 198 of the *Education Act, 1995,* a person must hold a valid teacher's certificate in ordered to be engaged, appointed, employed, or retained as a teacher in any school. A teacher's certificate is awarded to a person who has met the requirements established by the Saskatchewan Professional Teachers Regulatory Board (SPTRB). As outlined by the SPTRB, the requirements for a teacher's certificate in Saskatchewan include:

1. Complete grade 12 or equivalent;
2. Complete 4 years of post-secondary education and hold a bachelor's degree;
3. Complete a teacher education program comprised of at least 48 semester hours of teacher education that include an extended practicum;
4. Hold a teaching certificate from the jurisdiction where teacher education was completed (if outside of Saskatchewan). (para. 3)

This study excluded teachers working in Catholic schools, Francophone schools, and First Nations schools, not because their experience might be less important, but rather because the scope of this study was focusing on investigating the experiences and perceptions of those teaching in the K-12 public schools of Saskatchewan.

In addition, participant inclusion and exclusion were outlined and cleared by the Athabasca University Research Ethics Board before any participants were recruited and data

collected. Clearance from the Athabasca University Research Ethics Board will ensure proper ethical considerations are in place. See Appendix A to view the approved ethics application.

Participant Recruitment Process

Because I am an active member of the Saskatchewan Teachers' Federation (STF), I intended to recruit participants through the *Saskatchewan Bulletin*, a newspaper published ten times per school year by the Saskatchewan Teachers' Federation (2019). This newspaper is sent to every registered STF member after its publication including substitute teachers, teachers, administrators, teachers on education or sick leave, as well as others interested in education throughout Canada, representing over 13,500 teachers in publicly funded public schools (Saskatchewan Teachers' Federation, 2019). Given the narrow group of participants required, it seemed necessary that I target a specific publication that serves the K-12 teacher community.

The Saskatchewan Teachers' Federation (2019) describes various mechanical requirements that must be adhered to when advertising with the *Saskatchewan Bulletin*. The advertisement must be submitted to the *Saskatchewan Bulletin* in high-resolution PDF at least two weeks prior to the publication date. Ads must also be submitted electronically and include all fonts, supporting artwork, and photos. See Appendix B for a visual of the advertisement.

I utilized social media (Facebook and Twitter) as a cost efficient and timely tool for participant recruitment. Social media is emerging as a promising way to identify and recruit potential research participants as a wider segment of the targeted population can be reached based on their eligibility for the study (Gelinas et al., 2017). Using a passive recruitment strategy, I distributed the recruitment advertisement (see Appendix B) to participants via social media. A passive recruitment strategy distributes material with the goal of attracting potential

participants to contact the researcher (myself) for more information (Gelinas et al., 2017). Including the Twitter handles @SaskTeachersFed and @STFLearning, along with the hashtag #skteachers, as well as posting to the public Facebook group @Saskatchewan Teachers – Resources and Idea Exchange, I used these social media platforms to connect and share information while still allowing the social media users to maintain a degree of anonymity.

To ensure I had a robust sample size, I knew that I had to attract teacher attention during very busy times. Teachers are extremely busy people therefore it was important for me to try to access them in numerous ways. Because of this I also shared an invitation to participate in the research with each of the 18 public school divisions in Saskatchewan (see Appendix C). The invitation was shared via email to each of the contact emails provided on the school divisions webpages. This email asked that the invitation be shared with their K-12 educators. In addition, participant inclusion and exclusion criteria were outlined and cleared by the Athabasca University Research Ethics Board before data collection began.

Once participants expressed interest in participating in the research by contacting me through email, I sent a Letter of Information (see Appendix D) email that provided a brief overview describing the study. I assured participants participation in the research was voluntary and refusing to participate or stepping away from the study during the process would have no negative repercussions. I also assured participants that their comments and remarks would remain anonymous within the final research project. If participants expressed their interest to continue with the research, I sent them a Digital Informed Consent form (see Appendix E), ensuring I had their permission to include them in the study. After receiving the consent form, I shared the email interview with each participant (see Appendix F). The questions used in the study were derived from the five areas of the researcher's Conceptual Framework presented

earlier in Figure 6. Two email interview questions were derived for each of the five areas of the Conceptual Framework, for a total of ten email interview questions.

Participant Characteristics

In total, 15-20 participants were to be selected to be a part of this study. The literature, dating as far back as 1994, presents a variety of examples of the number of participants in studies conducted using email interviews (Meho, 2006). Educational studies ranging from six educational professionals examining how they use technology at work (Persichitte, Young, & Tharp as cited in Meho, 2006) to 13 K-12 teachers reporting on how the Internet influences literacy in their classrooms (Karchmer, 2001) can be found. As Anderson and McPherson (2018) demonstrated in their qualitative interview study of Alberta teachers, a broader focus of 18 to 20 teachers were willing to engage in their research. Ultimately, the pragmatic nature of this research is looking to improve understanding of distance education in K-12 by looking at the in-depth responses of a group of Saskatchewan teachers and providing teachers a voice from the frontlines. Participants ranged within four areas of educator experience: Kindergarten-Grade 3; Grade 4-Grade 6; Grade 7-9; and Grade 10-12. Participants could come from the 18 public school divisions across the province of Saskatchewan. The objective was to have participants that would represent a variety of school divisions, from across Saskatchewan. By including participants from a range of divisions and areas of the province, diversity of experiences and perceptions gave a unique perspective on the state of distance education in rural K-12 public education in Saskatchewan. Other change agents would emerge and be identified from the data collected.

Data Collection Methods

Email Interviews

Email interviews are a growing trend in conducting semi-structured interviews in qualitative research (Meho, 2006). With the current climate of COVID-19, many data collection methods, such as interviews, are pushed online (Amri et al., 2021). Face-to-face interviews can pose many challenges to researchers that can be overcome using email interviews (Persichitte et al., 1998). With travel costs, time, and geographical challenges involved in conducting personal interviews, email interviews help to overcome these research components (Hawkins, 2018; Hershberger & Kavanaugh, 2017; James, 2017; Meho, 2006). With the large geographical challenges presented in Saskatchewan, email interviews alleviated these stressors.

Email interviews allowed for asynchronous communication with research participants, unlike telephone or video interviews (Amri et al., 2021; Hawkins, 2018; Meho, 2006), also preventing participants from feeling self-conscious about their appearance (Amri et al., 2021). The asynchronous nature of email interviews is more flexible than synchronous interviews as both the interview and the interviewee do not need to be online at the same time therefore the interview can take place over a variety of time intervals (Amri et al., 2021). Time saving and cost saving elements of email interviews are also evident as there is no transcribing required, as the email itself is the transcription (Amri et al., 2021; Hershberger & Kavanaugh, 2017; Hunt & McHale, 2017; Meho, 2006). The goal of this research was to be timely and allow interested parties to make improvements to the field of K-12 distance education in a manner that will benefit current students and educators. Email interviews also allowed the researcher to conduct multiple interviews at the same time (Amri et al., 2021). Time was a factor.

Participants were also able to respond at a time that was convenient to them which allowed the participant more control over their participation which is an ethical advantage (Hawkins, 2018). Email interviews also allowed the researcher and the participants to participate in their own space (James, 2017). Teachers have high demands on their time, therefore email interviews created a convenience for them to overcome scheduling demands. Email interviews are not limited to the time constraints of a scheduled interview (Hawkins, 2018). Teachers had time to reflect on their answers before responding (Amri et al., 2021; James, 2017), carefully curating and editing their responses creating less spontaneous responses than synchronous interviews (Amri et al., 2021) as well as a perceived anonymity and decrease in power differential when disclosing sensitive information (Amri et al., 2021; Hawkins, 2018). Accuracy of responses can also be increased as participants can proofread their responses (Amri et al., 2021). Teachers hold very public personas and creating an environment where they were comfortable and more likely to express their feelings and experiences without being judged was important. Email interviews created this needed anonymous environment.

The demands and stressors on teachers today can be overwhelming. Teachers need to be provided an opportunity to take part in research that will directly affect them in a manner that is easiest and least intrusive. Being that teachers are very familiar with email and are highly literate, typing answers to an email interview would not be onerous. Teachers would also be more comfortable in discontinuing the study without the physical presence of the researcher, alleviating anxiety and stress in those participants who struggle with synchronous responses (Amri et al., 2021). The physical presence of a researcher can interrupt an interview or influence interviewees with non-verbal expressions of the researcher (Persichitte et al., 1998). The lack of strong internet connection can be limiting for synchronous interviews due to poor connection and

internet drop-off therefore email interviews can provide participants with the ability to formulate and send their responses despite connection issues by taking their electronic devices to community locations if they lack internet connectivity at home (Amri et al., 2021).

Along with the many advantages of email use to collect data, there are some disadvantages that cannot be ignored. As described by Dr. Gibson, a researcher at the University of Manchester, the crafting of the written response in an email interview can be more time consuming than an oral interview (methodsMcr, n.d.). In a study conducted by Hawkins (2018), she describes the potential for short and concise answers. She also concluded the written response may lack the social cues that are often evident in a face-to-face interview, although this can be mitigated with the use of written cues such as bold print, emoticons, and capital letters to help the writer communicate emotion. Hawkins describes how, along with the use of any technology, can come the challenges of connectivity which can cause an interruption of use of the technology. The need for the researcher to be cautious to not mix up the narratives when responding to participants concurrently also has to be addressed through the researcher's organization (Amri et al., 2021).

No validated questionnaire/interview existed for my area of research therefore I was challenged to create interview questions that would help me to gather information that would address my research questions. Using the Conceptual Framework as my guide, I developed the interview questions. Pretesting of the interview questions took place prior to the questions being shared with the participants of the study. As indicated in a study by Hurst et al. (2015) this pretesting helps to identify obstacles and increase reliability of the questions. The pretesting was carried out with 2 colleagues with similar characteristics to the target study population, replicating how data will be collected during the study. The simulation of the data collection

method helped the researcher to identify potential problems with regards to wording, data collection, and interpretation. Any problems that were identified were then rectified. Hurst et al. also describe how pretesting also provides the researcher with practice to engage in data collection and coding. Assessment of the interview questions and addressing any limitations identified was carried out prior to sharing the formal email interviews with participants.

After the completion of the pre-testing of the interview questions was completed, an initial open-ended email including interview questions (Appendix F) was sent to the selected participants. A total of 10 interview questions were provided to participants. The limited number of questions was due to the many other stressors educators currently have on their mental health and time during a difficult time of teaching during a pandemic. Following the example provided by Hawkins (2018) subsequent interview questions were sent based on the initial responses for further clarification, including additional probing questions to encourage further details and reflection of emerging themes. A follow-up email was sent to participants to remind them of the email interview questions if required. Again, following the study conducted by Hawkins, I concurrently conducted interviews due to the asynchronous nature, allowing me an opportunity to look for common themes. It was important for me to establish rapport with the teacher participants to help demonstrate a shared identity. This was achieved by disclosing my professional experience in my self-introduction to prospective participants.

A challenge with email interviews is determining closure (Hawkins, 2018). Bowden and Galindo-Gonzalez (2015) found that participants are more likely to participate in research if a time limit and email exchange limits are presented. Participants who have a better understanding of the time commitment are more likely to participate. Because of this, I defined a limit of two email exchanges and hoped to gather first responses to the interview questions within one week,

with some flexibility for participants. I also offered teacher participants an honorarium $20 Chapters e-gift card to compensate them for their time. I electronically sent a thank you note, along with the e-gift card, after the second response to participants to recognize I appreciated their commitment.

Field Notes

Qualitative field notes are an essential component of rigorous qualitative research that enhance data and provide context for analysis (Phillippi & Lauderdale, 2017). There are various types of field notes. For the purpose of this research reflexivity notes and email reading notes were used during and following the collection of email interviews. Reflexivity notes are regular on-going "gut-check's" during the research process where the researcher will comment on feelings, any ethical dilemmas or issues, and other relationships identified within the field of education (Leavy, 2017). Email reading notes provided an opportunity to scribe formal and informal notes about the topics addressed within the email interviews, as well as note any follow up questions (Leavy, 2017).

Field notes function in a variety of ways to support qualitative researchers. Phillippi and Lauderdale (2017) present a number of functions of field notes identified from a literature review of more than 40 articles. Mirroring Phillippi and Lauderdale's study, the field notes used within this research prompted the researcher to closely note the interactions between the participants and herself, provided opportunity to supplement language focused data, document impressions shortly after they occurred, encouraged personal reflection and identification of bias, facilitated preliminary coding, increased the trust worthiness and rigor of the data collected, and provided essential context to inform data analysis.

Field notes provide an opportunity to create a record of the research unfolding over a period of time and are valuable in analysis (Phillippi & Lauderdale, 2017). The format for collecting field notes was planned ahead of time (Appendix G) featuring content in the following areas: setting, participants, interview, and reflection. The name of the study, as well as the principal researcher, were permanently noted on the field note collection form. The date and time of the review of the email interview, and the participant's identification number were also noted. After these identifying details were completed, the order of the remaining field notes could be completed in any order (Phillippi & Lauderdale, 2017).

Information collected relevant to participants included the region of Saskatchewan they were teaching in during the COVID-19 pandemic. These areas were identified as North-East, North-West, South-East, and South-West Saskatchewan. The identification of the area safeguarded participants and was not identified by school division therefore helping to ensure participants cannot be identified.

Discussion regarding participant responses to the email interview questions was recorded in the "Interview" portion of the field notes. Again, mirroring the study of Phillippe and Lauderdale (2017), the researcher reviewed each question individually and evaluated the depth of responses, the value of the question, digital interactions between the researcher and the participant, and tentative codes and categories. Also emulating the study, the researcher compiled notes reflecting on the whole of the interview including overall thoughts, potential biases, the interview process itself, interview questions, and tentative codes.

Field notes are best recorded immediately during and following the completion of the email interviews (Phillippi & Lauderdale, 2017). This helps to ensure the researcher's memory is fresh. The field notes were hand-written, as represented in the sample provided in Appendix H,

during the initial recording of the notes, then digitized and well-organized following. Even though a list of topics were presented to address, the researcher remained open to additional items if needed. Digitizing the field notes organized them so they could be searched by keyword and reorganized by topic, time frame, and participant (Leavy, 2017; Phillippi & Lauderdale, 2017).

Data Analysis

Coding

Data analysis of the research took place in tandem with the data collection. As I collected data through email interviews, field notes, and my personal positionality I analyzed and coded to discover themes. Triangulating the data collected through email interviews, field notes, and my personal positionality connected perspectives, thoughts, passion, and concern presented by the educator participants and the researcher. As described by Cohen et al. (2011), this qualitative data was coded by analyzing the reflexive interactions between the researcher and the data that was an interpretation of a social encounter. Also following the work of Cohen et al., the data was disassembled and reassembled using coding. The work of Saldana (2015) describes a code as a researcher-generated construct that symbolizes or translates a theme or category. Coding is not an exact science, but an interpretive act of the researcher (Cohen et al., 2011; Saldana, 2015).

This qualitative study was inductive. The research began with a broad research question and final themes were suggested and uncovered from the data (Kelly, 2012). The Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools (Figure 6) suggested the ideas of themes, words, patterns, and clustering of data. Coding is ultimately the ascription of a label to a piece of data that is already predetermined from the theoretical frameworks or in response to the data (Cohen et al., 2011). As Kelly (2012) suggests, I avoided too much

interpretation at an early stage of my research using an inductive approach, as I needed to allow for the data to "speak for itself." Inductive codes are often in vivo codes, codes that are terms taken directly from the data (Rivas, 2012). In vivo coding also helped me to avoid early interpretation which could have resulted in misinterpretation of the data collected (Rivas, 2012).

Using the research software NVivo, I was able to streamline qualitative data to manage and organize what was collected (QSR International, 2021). La Trobe University (2021) describes gathering related material into a container called a node. When the node was opened, I was able to see all the references within the data to that node. There were several types of nodes that were maximized to gather and connect data. Also noted by La Trobe University, theme nodes were used to represent the themes or topics that I found. For example, the data presented from the areas of the Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools (Figure 6) were identified within theme nodes. I also looked for relationship nodes, as suggested by La Trobe University, where connections were made between various items creating sub-themes. Ultimately, the five categories within the Conceptual Framework for Distance Education in K-12 Saskatchewan Public Schools (Figure 6) were coded within the data. Aggregated codes were identified from within each of the five categories identifying subcategories within the Conceptual Framework.

As a researcher it is important to establish the process of reliability. Reliability is ultimately the degree to which more than one researcher would generate similar interpretations of the data (Franklin et al., 2010). A practical way to do this is to minimize the amount of bias, more particularly, the attitude, opinion, and expectations of the researcher (Cohen et al., 2011). The use of field notes containing reflective thinking and identification of emotions of the researcher can circumvent threats of reliability (Franklin et al., 2010). Another method to help

control reliability is to have a structured interview providing the same wording of questions and context that is consistent among participants (Cohen et al., 2011). Also, the transcribed nature of email interviews helps to eliminate transcription errors that may otherwise occur. Reliability has a relationship to validity. Validity in qualitative research can be addressed through the honesty and depth of the data collected and the extent of the triangulation of data by the researcher (Winter, 2000).

It was also useful to utilize interrater reliability to assess my analysis of the data. Interrater reliability is defined as whether or not another researcher would interpret the data the same way (Cohen et al., 2011). This rigor is necessary to establish confidence and trust in my research findings (Thomas & Magilvy, 2011). As described by Cohen et al. (2011), I strove for 90% or higher interrater reliability rate. 16 participants in the study resulted in several coded data where I evaluated the reliability of the responses of two participants, resulting in the interrater reliability of 13% of the total participants. The responses collected from Participant 30 and Participant 41 were shared with emerging scholar Ruth Lindsey-Armstrong. I also shared with Mrs. Lindsey-Armstrong the descriptors of the conceptual framework used to code the data. Once completed, the interrater reliability rate was found to be 92%, meeting the desire to reach 90% or higher. This percentage was determined by the number of times her and I agreed divided by the number of possible opportunities to agree, then multiplied by 100 (Cohen et al., 2011).

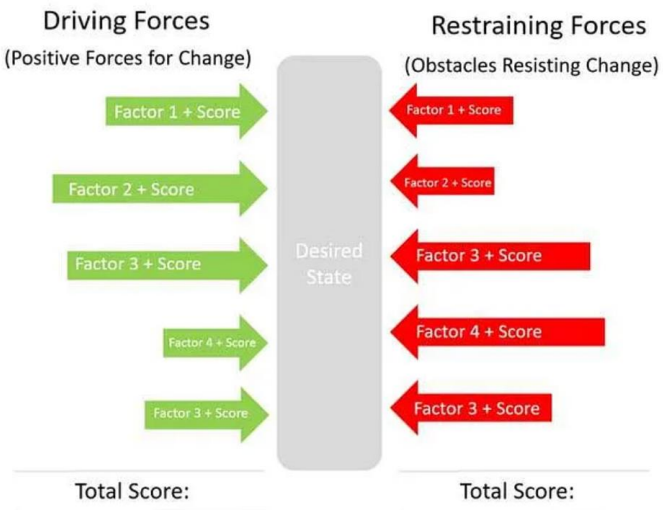
Force Field Analysis (FFA)

FFA, a methodology developed by Lewin in 1951 (Toves et al., 2016), is used for planning a systemic approach of how to attain a goal (Lee, 2019; Smartt et al., 2018). This approach was used to help identify factors or forces that influence, drive, or impede change for K-12 distance education in Saskatchewan (Toves et al., 2016). The purpose of FFA is to examine

the data and identify factors (often referred to as forces) that are driving an organization toward or away from achieving their goal (Smartt et al., 2018), an important step in insider action research positioning. FFA principles identify three key actions that must take place in order for change to occur: first, identify contributing forces that influence distance education; second, determine which forces can be controlled to drive change; and third, develop an action plan to drive change (Toves et al., 2016). The concept behind FFA is that organizations are maintained by a balance between forces that drive change and forces that resist change (Harwell, 2000). For change to occur within an organization the driving forces must be stronger or strengthened and the resisting forces weakened (Hustedde et al., 1995) (see Figure 11). FFA has been successfully applied in adult education, health care, quality management, project management, and public policy (Smartt et al., 2018) which demonstrates its flexibility.

Figure 11

Lewin's Force Field Analysis Model (Lee, 2019)



When working through the FFA, I reviewed coded data and identified key factors and major themes. I identified factors (forces) that are driving change and factors (forces) that are

resisting change. Using the data presented, factors (forces) were then assigned a score, one (weak) to five (strong), according to the degree of influence identified in the data (Tahir, 2019). This data is presented in a visual like Figure 11 in Chapter 5 using longer arrows to represent forces that have a greater influence on change, and smaller arrows to represent forces that have a weaker influence on change.

By identifying patterns and themes represented by forces discovered within the data, I was able to identify possible action steps that could improve K-12 distance education in Saskatchewan, as well as identify areas for future research. FFA will help to facilitate actions that could achieve the goal of improving distance education for K-12 students in Saskatchewan by identifying forces that work against achieving the goal and leveraging forces that work in favor of achieving the goal.

Ethical Considerations

In qualitative research, the researcher has the responsibility to protect the participants from potentially harmful consequences that might occur as a result of participation in the research (Sanjari et al., 2015). Some important ethical considerations that should be addressed are: anonymity, confidentiality and informed consent (Sanjari et al., 2015). In this research study, a written description of the study (see Appendix D) was provided via email and a digitally signed informed consent (see Appendix E) was obtained from all participants. Participants were assured their information would be kept confidential and anonymous in the final research presentation. Participants were also informed they could withdraw from the study at any time. Data storage occurred on a password protected hard drive. Data was collected once approval was granted from the Research Ethics Board at Athabasca University, as well approval from individual school

boards (when required) was obtained after the approval from the Research Ethics Board at Athabasca University.

Chapter 3 Summary

In this chapter, I outlined the methodology for this study based on my pragmatic beliefs. I defined the selection of participants, their characteristics, and the recruitment process. Next, I outlined the data collection methods and analysis used. Lastly, ethical considerations were discussed. I will outline the results of the research and discuss the findings in Chapter Four, as well as propose areas for future research in Chapter Five.

Chapter 4: Findings

In a qualitative study, the collection, analysis, and interpretation of data that is not easily represented by numbers is completed (Anderson, 2010). Coding is a universal part of the qualitative research process and a fundamental aspect of the research process (Elliott, 2018). The primary research question (How do public school educators in Saskatchewan K-12 schools perceive the state of distance education in the province?) was examined and coded using the researcher's Conceptual Framework. Participant responses from the email interviews, including the researcher field notes, were coded by the researcher with NVivo and common themes identified and presented in Chapter 4. Sub-themes were also identified and presented. The themes identified articulate and communicate the research questions of this study by identifying the components of the Conceptual Framework.

This chapter will begin by identifying the characteristics of the participants within the study. The chapter will then move into identifying and discussing the characteristics and themes, along with sub-themes, identified within my Conceptual Framework discovered throughout the coding process. Participant quotes will be presented throughout the chapter to provide evidence of the data. Lastly, a FFA will be presented using the results of a Matrix Coding Query conducted using NVivo.

Participants

In total, 16 participants were selected to participate in the study. Each participant was identified using a Participant number. Participants were recruited through social media (Facebook and Twitter), as well as by invitation shared via email with the 18 public school divisions, which was then distributed to their perspective educators. Six participants were attracted through social media and ten participants recruited through email. The advertisement

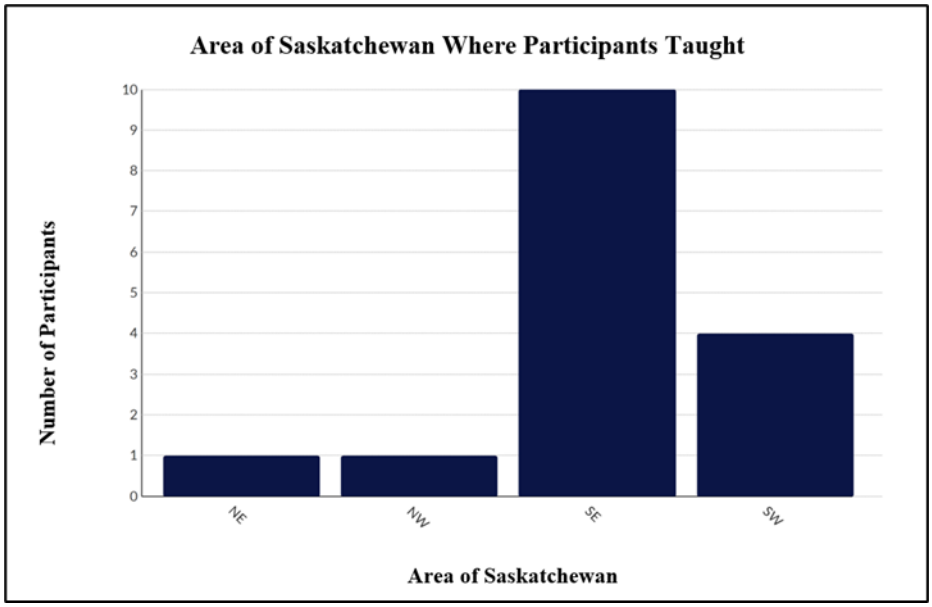
with the *Saskatchewan Bulletin* was not utilized as the interest of teachers through social media and school division invitation met the sample size need quickly.

Participants were assigned a participant number (ex. Participant 17) as soon as they expressed interest in the study. Participant numbers 1-42 were assigned. Not all participants continued to the final stage of the research process therefore may not have been included in the final data.

I divided the province of Saskatchewan into 4 areas: Northwest (NW), Northeast (NE); Southwest (SW), and Southeast (SE). Each participant indicated in which area of Saskatchewan they taught when they completed the Email Interview Questions (Appendix F). It was important for at least one participant to teach within each of the four areas of the province to ensure a voice was shared from each of the areas. As seen in Figure 12, one teacher taught in the Northeast, one teacher taught in the Northwest, ten teachers taught in the Southeast, and four teachers in the Southwest. These numbers correspond to the dense population in southern Saskatchewan verses the sparse population in northern Saskatchewan (World Population Review, 2021)

Figure 12

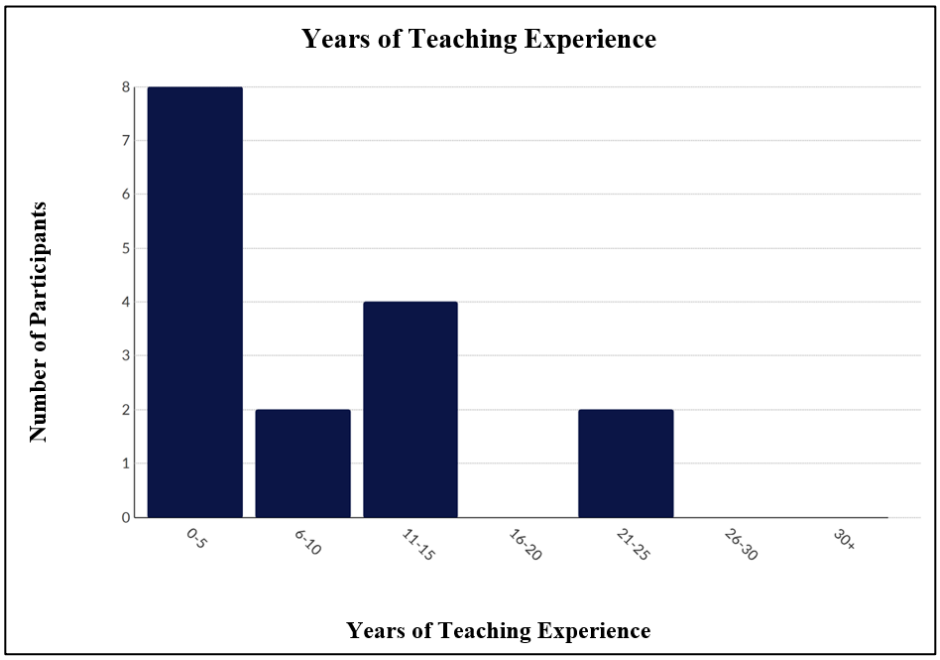
Graph of Area of Saskatchewan Where Participants Taught



The teaching experience of the participants (see Figure 13) was noted in increments of 5 years (0-5 years, 6-10 years, 11-15 years, 16-20 years, 21-25 years, 26-30 years, 30+ years). The largest group of participants (eight) had 0-5 years of experience. Two participants had 6-10 years of experience. Four participants represented the increment of 11-15 years of experience and two participants had 21-25 years of teaching experience. Zero teachers represented 16-20 years of experience, 26-30 years of experience, and 30+ years of experience respectively.

Figure 13

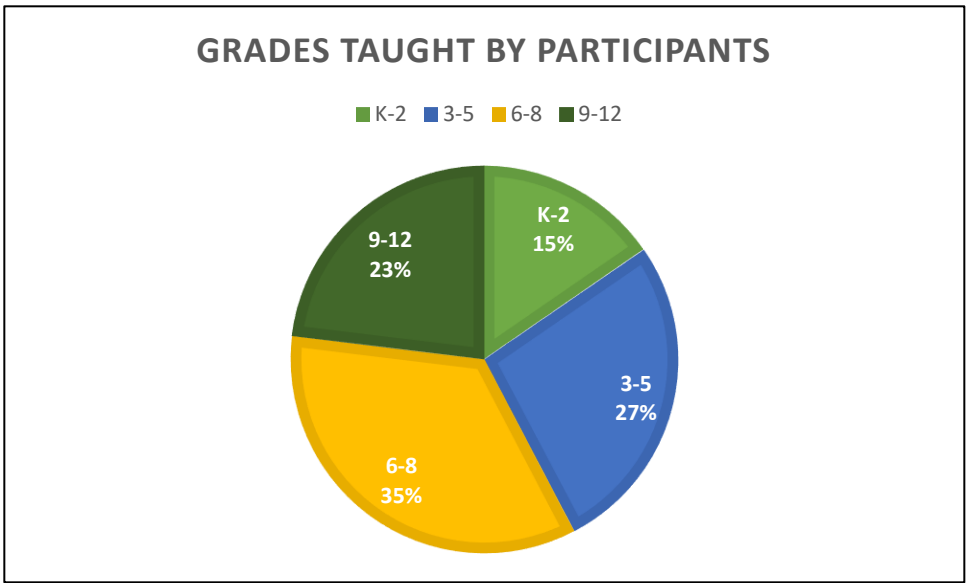
Graph of Participant Years of Teaching Experience



Grades taught by participants were noted, including the number of participants teaching in multi-grades (see Figure 14). Several participants taught in multi-grade situations therefore are represented in more than one of the grading categories. Four participants had taught in Kindergarten to Grade 2; seven participants had taught in Grades 3-5; nine participants had taught in Grades 6-8; and six participants had taught in Grades 9-12.

Figure 14

Graph of Grades Taught By Participants



Administration experience, as well as Student Support Services, were also noted. Two participants indicated they filled an administrative role. Four participants were involved in a Student Support Services role.

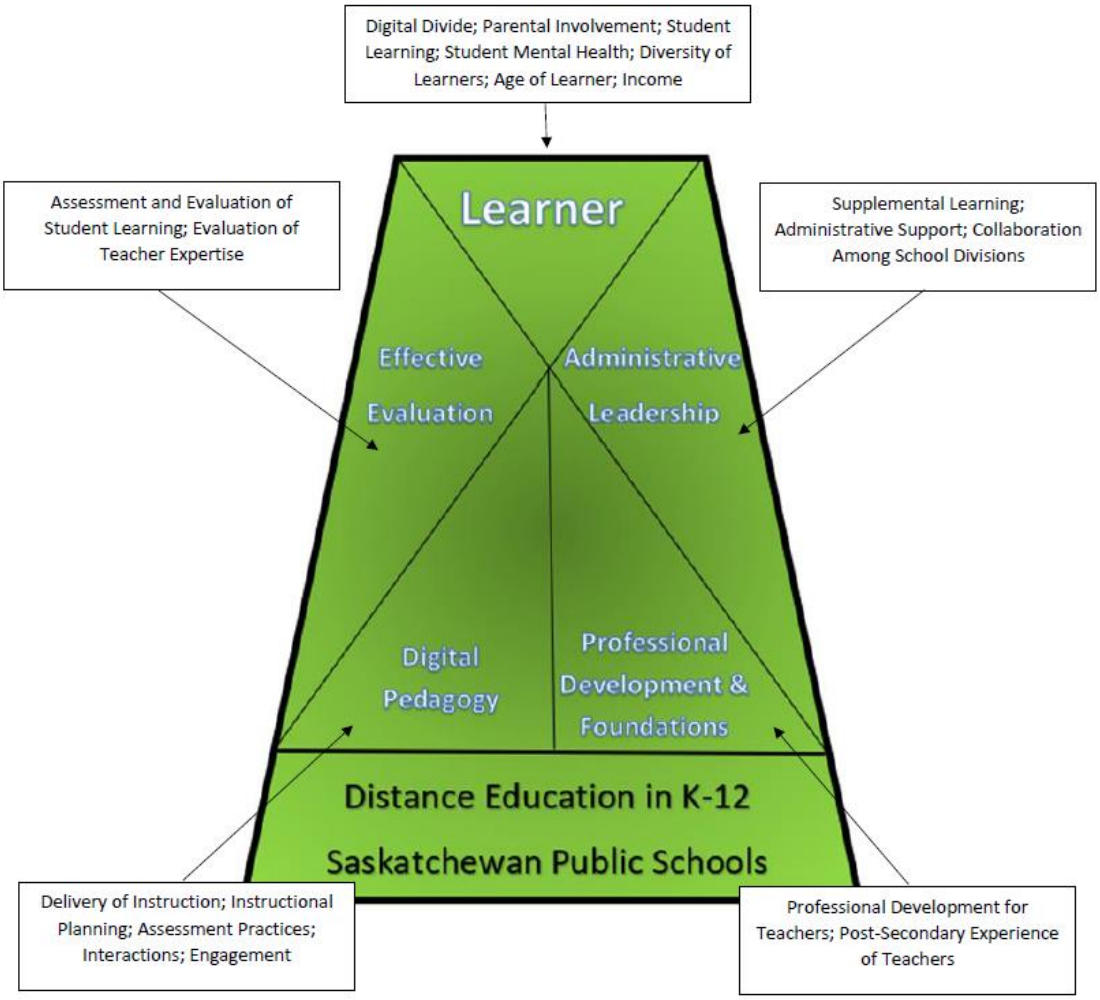
Conceptual Framework

The Conceptual Framework (Figure 6) has been used to identify the five main areas (Learner, Administrative Leadership, Professional Development and Foundations, Digital Pedagogy, and Effective Evaluation) that intersect and influence the quality of distance education in Saskatchewan. The conceptual areas in the framework defined the concepts and content within each concept by establishing boundaries in each area (Laustsen et al., 2021). The second phase of the Conceptual Framework was to organize, analyze, and interpret participant responses (Laustsen et al., 2021) creating emerging themes (Figure 15). These themes emerged

from identifying participant responses and their frequencies. Appendix I provides representation for the frequency or number of codes represented in the data. Themes are discussed in order of prevalence and magnitude. Using the definitions and descriptions for each area of the Conceptual Framework, the researcher determined the placement of the themes. Prominent themes developed within each of the five main areas as represented in Figure 15. One of the advantages of Figure 15 is a clear representation of the themes that emerged throughout the research. These themes are discussed and broken down into further sub-themes (see Appendix J) in detail in the following paragraphs. Sub-themes are presented as part of the individual concepts within the respective sections.

Figure 15

Conceptual Framework Themes



Learner

A variety of themes, including sub-themes, emerged concerning the Learner from the viewpoint of their teachers (see Figure 16). As the Learner is the central focus of the Conceptual Framework, not surprisingly many themes emerged, while referenced 113 times (see Figure 17): the Digital Divide, Diversity of Learners, Parental Involvement, Student Learning, Student Mental Health, Age of Learner, and Income were recognized as barriers or challenges, while others were noted descriptors of the Learner. These themes are presented in order of magnitude.

Each of the emerging themes present sub-themes that provide an element that describes the Saskatchewan Learner working in distance education.

Figure 16

Learner Themes and Sub-Themes

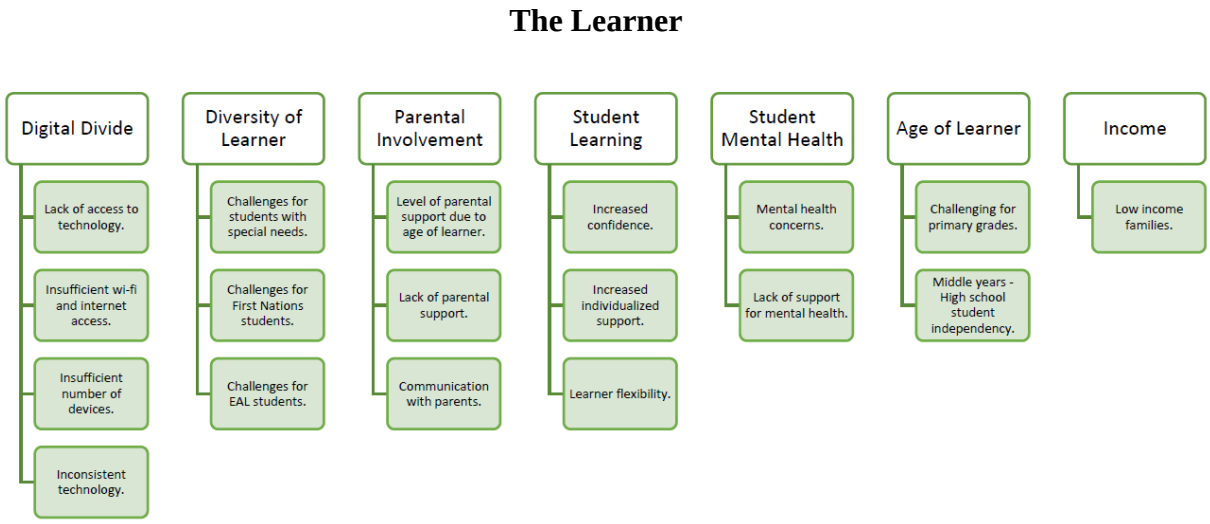
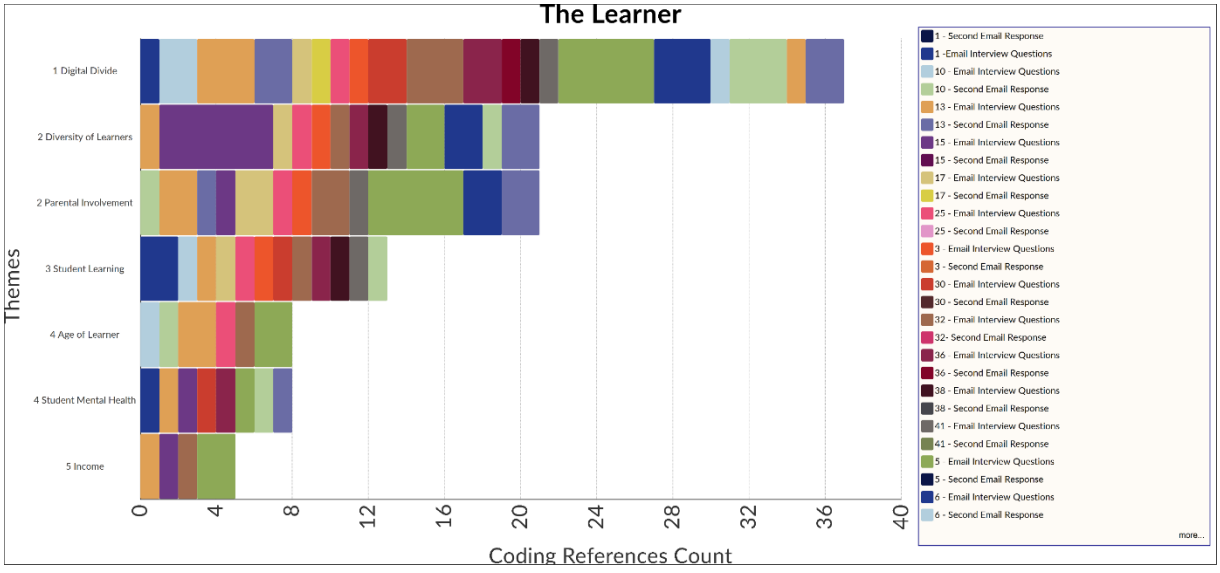


Figure 17

Learner Coding Reference Count



The Digital Divide. The Digital Divide was strongly represented within the data, as it was coded 37 times throughout the interviews. The lack of access to technology, insufficient wi-fi and Internet access, insufficient numbers of devices for multi-student homes, and inconsistent technology were all hurdles described by participants. As Participant 3 stated, "The pandemic has widened the gap between students with means and opportunity and those without." The digital divide was strongly felt in rural Saskatchewan and described by eight participants. The eight participants expressed their concerns, similar to Participant 1 who stated, "When the pandemic first hit and I was teaching at a very rural school, many students struggled to access assignments since they literally did not have stable internet (crazy right?)." Participant 30 experienced the digital divide and referenced the lack of Internet access in various parts of Saskatchewan putting, "many kids at a disadvantage with education because they do not even have the means to participate if they wanted too." The unequal access to technology and the Internet is a hurdle that influences Saskatchewan learners in distance education. Three participants described school divisions providing devices and internet hotspots to some of their students and staff. This infrastructure support was looked upon fondly by the participants as a means to close the existing digital divide gap. Seven participants also revealed concern over multi-student families struggling to share one device among themselves. Participant 7 described families sharing one device among siblings for school and parents for working at home. Lastly, the inconsistency among the types of technology families had created challenges for some participants. Participant 32 revealed:

> One barrier is trying to find a common format/program that all students would be able to use at home and that parents would also be [*sic*] to navigate (for younger students). Families have various levels of technology at home, so the materials a teacher would

develop would have to be quite basic so that all students could access it. For example, some families might only have a Smartphone and that's it – no printer, no laptop, etc. As a result, learning materials that would require printing off documents might not work for some families.

Diversity of Learners. The second most prevalent theme was Diversity of Learners with 21 references. Diversity of Learners was presented in various sub-themes such as students with special needs, First Nations students, and English as an Additional Language (EAL) students. The various diversification of learners presented challenges because many of the supports provided to diverse learners in a face-to-face classroom were difficult, if not impossible, to provide in an online environment.

> My students are 90% Indigenous and have special needs. I teach a special education program for students with mild intellectual disabilities (many also have FASD, ADHD, ODD, and other mental health needs). My students are mostly living below the poverty line and do not have access to stable housing, nutrition, etc. let alone the supports to engage in independent learning at home. They are in a special program because they need intervention beyond what a general ed classroom can provide so working from home is not possible for my kids *(*Participant 15).
>
> It was difficult to evaluate those students that are ESL learners and those who need to verbalize answers. When we are working in a classroom, those students can raise their hand and tell me what they are thinking for me to assess accurately. That wasn't the case in distance learning where the kids had less access to their teachers and EA supports (Participant 38).

> Distance education is a challenge for those students that need extra support which they did not receive to the same degree as they were learning from home. The students that struggle with executive functioning might find it more challenging to complete assignments from home (Participant 25).

Difficulty providing staff support for students with special needs was a concern presented as many learners who required staff support during face-to-face instruction struggled to receive these same supports in an online environment. As Participant 17 noted, "they benefit so heavily from one on one, in-person support and this is not able to be offered to the same degree online."

> For our students with exceptional needs it was very hard to work on skills and goals if you are not able to see the student. I have a student who is non-verbal so we had to do everything over text but with an intellectual disability and limited parent support he was not able to complete much work. When working with students with exceptional needs it is person-centered not subject centered so individualized programming and support was hard to do (Participant 9).

Some learners require supports for areas that are not academic based but areas that support day to day learning and life skills. As Participant 5 describes, "many of our support staff assist students with nutritional needs, take them for movement breaks throughout the day, provide regulation and one-on-one support when students are feeling overwhelmed. Those supports were not possible during distance learning." Participant 15 stated, "so much of their learning is through hands on skills, social and interacting with staff - it's impossible to meet these needs without being together." Meeting the needs of all students is difficult to create for each individual student as described by Participant 15: ″They also have far too many obstacles in their personal lives to

even begin to focus on learning at home (parenting, food security, stable housing, substance abuse, mental health needs and gang affiliation)."

Parental Involvement. Many of the participants presented a focus on Parental Involvement, either the need for it or the lack thereof, and how it affected the outcome of distance education for their students. 21 representations of Parental Involvement were identified within the data. Parents of younger students versus older students had different roles to play as the younger students required much more support and supervision to complete assigned tasks. Several participants shared the same thoughts as Participant 10: families of younger kids generally found online learning very difficult to facilitate and as the kids get older, less so. Even when technology was present in the home, the students required support to use this technology. Participant 25 communicated, "Students that do not have strong support at home from parents, caregivers, etc. struggle more with staying motivated and engaged." Parental situations that included shared custody, childcare arrangements, and loss of financial stability of parents added additional stress to navigate which affected learner engagement as well. Participant 13 described:

> Families do not necessarily have the time, ability or structure to dedicate the time necessary to helping their children with online learning while maintaining their full-time jobs and responsibilities. Children of families that are able to flex their time to work with their children online have considerably more success.

Parents were challenged to balance their personal work demands and helping their children. Participant 5 described her personal struggles as a teacher working from home, trying to manage and support her own child's online learning:

> I found it overwhelming as a parent who both had to stay home and work and yet also provide supervision and care for my children to find balance. There were some days I simply could not keep up with helping my children access their remote learning materials.

The need for strong parental communication was also highlighted in the data as many participants felt that when the communication with parents was strong, learner engagement was improved. Communication with parents, along with students, about learning activities and assignments was an important piece of learner success. As described by Participant 32, "parents needed a lot of clarification and had many questions about technology and about the learning activities and assignments themselves." Another struggle participants discussed was the fact they, at times, questioned what authentic student work was and what was completed/assisted by parents. As noted by Participant 5, this discussion point came up often in conversation among teachers sharing their personal experiences during supplemental learning.

Student Learning. The positive effects that distance education had on Student Learning was discovered within 13 responses. Some participants discussed how many of the learners they worked with experienced an increase in confidence, whether due to the flexibility presented or simply the lack of peer pressure sometimes found in face-to-face classrooms. Participant 13 wrote, "They felt free to comment and engage in a way they could not in person in the classroom." Participant 30 also supported the positive impact online learning had on some students by describing specific scenarios:

> Students could be more comfortable participating whether it be with the mic on, or writing in the chat, to avoid judgement from peers. Some of my students were more confident with submitting video presentations/oral responses to questions when they

didn't have to worry about their peers listening to them.

Learners also experienced an increased level of support in an online environment as some participants felt they could provide learners with increased access to individualized support. Immediate feedback and individualized assignments that were completed by individual students as opposed to a group of students, all of which can be difficult to do in a busy face-to-face classroom, was a discussion point within the data collected. As Participant 1 described:

> One positive I have found in the remote learning model we use is that students have more access to one-on-one time. I have been able to conference with students and go over their essays and give them feedback, a luxury I didn't always have in an in-person model.

The participants ability to be flexible and increase the level of student feedback provided to the learner was noted in the data. Both Participant 10 and Participant 25 discussed the positive impact distance learning had on feedback:

> E-learning applications such as Google Classroom make it easy to give extensive feedback on assignments both after completion and during the process. They make it easy to create rubrics when needed for assessment. Students have easy access to their assessments and feedback (Participant 10).

> I like how students can receive feedback in a quick way where it is easily accessible by them. It is great that we can type comments in an assignment and provide feedback for the students. Some online exams also provide students with immediate feedback upon completion. They [*sic*] is beneficial and motivational for many students (Participant 25).

Learner flexibility was noted among participants as well. Some participants discussed how flexibility provided learners who would normally commute for hours to attend in-person

schooling with the extra time to dedicate to either learning or their hobbies. The flexibility of learning online provided learners with liberty to address other needs. Participant 36 describes:

> In general, I structured my class in a way that was flexible, so students could plan around their time/do the work around their other commitments. At the high school level, this gave me and the students a lot of freedom with how we did things in our digital space and when we did things**.**

Student Mental Health. Student Mental Health, in both positive and negative ways, was represented 8 times within the data collected. As described by Participant 1, "students who struggle with their mental health and bullying have found solace in being able to learn from home." Participant 9 referred to the trauma education has experienced. "There is an underlying trauma and trauma response that all staff are going through and our education system does not seem to recognize or there are temporary band aids being put on it," they wrote. From learners experiencing anxiety to learners experiencing the loss of involvement, various types of students are experiencing mental health concerns. Participant 13 noted:

> Students that really need the extra curricular interaction of sports, drama, etc. to buoy them up in school are floundering. Many students feel isolated and lost. Anxiety and fear are a constant issue and only grow as the pandemic continues.

Teacher participants wrote about supports provided for addressing mental health during Saskatchewan's 2020 supplemental learning from a learner, as well as a staff, perspective. Participant 36 describes, "there also has not been much in place for student mental health and staff well-being. Students are struggling in our schools and our guidance counsellors are overwhelmed." Participant 7 describes, "anxiety is very high for teachers and students. Our

division keeps saying mental health is a priority this year, but we receive memos with brief paragraphs and no substantial supports in place." Eight participants mention mental health of the learner and/or staff as a concern.

Age of the Learner. As participants discussed the Age of the Learner (8 references) common sub-themes developed. Many participants referred to the age of the student influencing participation and independency. As stated by Participant 13, "online participation in each class was influenced by age. Older students were slightly more engaged than younger students." Participant 20 expressed her displeasure with the online experience, largely due to the young age of her students. The teachers of primary grades often discussed how challenging it was for them to feel confident in their ability to address the needs of their students: "I feel very lost in the younger classes as to how to gear activities to their abilities with minimal dependency on an adult" (Participant 13). As described by Participant 25, "I think that it is more challenging for teachers teaching the primary grades. For middle years teachers and up it is a bit easier as the students are older, more mature, more independent, etc."

Income. Lastly, the discrepancy of Income for student families influenced five responses of participants. Access to equal opportunities, or lack thereof, due to family income was a concern presented in the data. Participant 15 expressed: "My students are mostly living below the poverty line and do not have access to stable housing, nutrition, etc. let alone the supports to engage in independent learning at home." Participant 5 discussed her concern that, "some of our families do not have working phones or email addresses so we lost contact and were not able to do check-ins." The challenges that some lower income families faced, including access to devices, influenced the online teaching experiences of some of the participants.

Digital Pedagogy

Various themes were discussed within Digital Pedagogy: Delivery of Instruction, Instructional Planning, Assessment Practices, Interactions, and Engagement (see Figure 18). As represented in Figure 19, these themes were referenced 86 times through the data.

Figure 18

Digital Pedagogy Themes and Sub-Themes

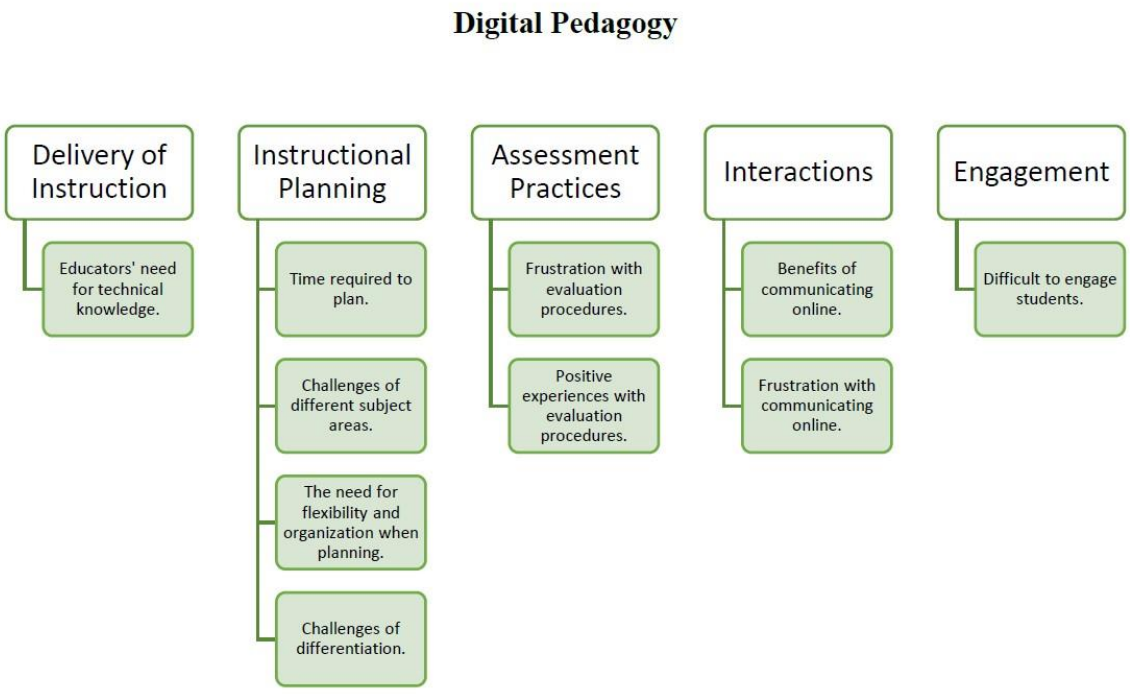
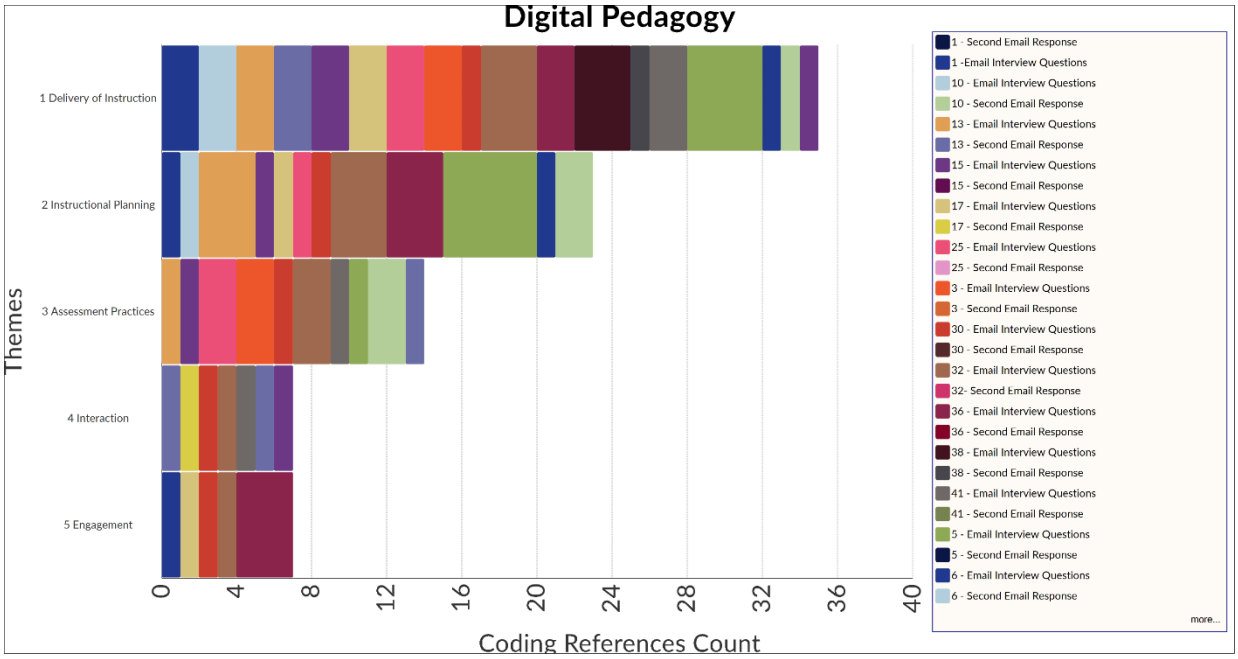


Figure 19

Digital Pedagogy Coding Reference Count



Delivery of Instruction. The most prominent theme within Digital Pedagogy was Delivery of Instruction, referenced 35 times. Fifteen of the sixteen participants discussed delivery of instruction at some point throughout their email interview. The connectiveness of knowledge of technology to delivery of instruction was strong in the data. Many participants shared a similar mindset as Participant 10: "In order to effectively teach remotely, teachers need to have a good grasp of how to use technology." For some participants this was not a challenge but for others technological literacy was a challenge. The sheer amount of technical knowledge required to teach online was pinpointed by Participant 25:

> Teachers definitely need to have a good understanding of how to use technology. They need to be able to use video effectively, know how to scan documents/images, post assignments in different platforms and create assignments that are engaging. Our school

> used Microsoft Teams and the main struggle was understanding how to effectively use the technology.

Participant 32 described the need for teachers to be, “very adaptable as they have to learn a lot of new technology in a short amount of time,” and that, “having technology skills is definitely an asset for distance learning.” The challenge several participants described was similarly noted by Participant 5: “Teachers had to reinvent many of their approaches to learning. For many, technological literacy was a massive learning curve for them.”

Instructional Planning. A second popular theme recounted by participants and referenced 23 times was Instructional Planning. The time participants had to commit to plan for teaching online was mentioned by five participants and reflected upon as a barrier. “Another barrier is time,” as communicated by Participant 25, “It takes a lot of time to create files, assignments, etc. in a digital format. Teachers have to manage their time in a different way.” Participant 5 described her negative experience with instructional planning:

> Last spring I was still working at 10 or 11pm as I tried to keep up with everything. There are still many weekends that I am trying to put together video assemblies, etc. in the hopes of still providing some semblance of fun and community for our school.

Different subject areas also seemed to challenge the participants ability to plan. Those participants who taught subjects other than English Language Arts and Math described struggles with instructional planning. For example, experiences with planning Art activities based on what supplies participants assumed students had at home (Participant 13) to French teachers who struggled to plan activities that could be done “relatively independently with little to no adult help at home, as many of the parents do not know any French” (Participant 32). Many divisions

placed a focus on literacy and math during supplemental learning therefore leaving some teachers to "feel useless," as expressed by Participant 5. Participant 5 shared:

> This was a challenge as I think some teachers felt like they needed to put in a full day of work, and in some cases were reinventing the wheel or creating content that was not the focus of our division for that time period.

Participants also identified the need to be flexible and organized in planning. The need to be flexible was described by both Participants 13 and 36. Participant 32 shared thoughts on the need for teachers to have:

> …strong organizational skills as it was very challenging trying to keep track of assignments, schedules, Google Meet times, parent communication, etc., (and even more so with a split class! – trying to keep straight which assignment or link was for which grade on which day was very challenging!).

Differentiation of activities and planning for students on Individualized Instructional Plans (IIPs) were also described as challenging by participants. Participant 32 experienced challenges when planning for adaptations for students. They wrote, "It is much easier to make some adaptations or provide a little extra support for students in the classroom, but this is much more difficult when you're posting assignments and activities online."

Assessment Practices. A part of Digital Pedagogy is Assessment Practices. Assessment Practices was referenced 14 times throughout the data. Participants discussed some of the struggles they experienced with trying to determine how to evaluate student work on a digital platform. Participant 13 expressed her frustration with transferring handwritten work into a digital platform in which he/she could evaluate:

> Parents taking [*sic*] pictured of handwritten notes or equations are often illegible. Requesting students to type is an additional skill they may or may not be proficient at which puts another layer to wade through in evaluation of the actual content.

Participant 32 also expressed her wavering confidence in assessing student work considering the learning was not mandatory:

> Another factor was that the distance learning in the spring of 2020 was "optional" for students and we were not using their work during this time for formal evaluation purposes. If this was to change and activities were being used for formal evaluations on report cards, I would also feel less confident in distance teaching.

Some participants described the use of paper learning packages for some of their students. Participant 5 revealed, "we could not receive the work back to check if the students finished the work or understood what they were doing." Other participants appreciated how quickly they could provide feedback to their students on a digital platform. Participant 25 and Participant 3 shared similar positive experiences with student assessment describing beneficial and motivating ways to provide feedback to their students using technology.

Interactions. Participants experiences with Interactions or communication with students was mentioned in the data seven times. Some participants were encouraged to interact with students in a few ways. As described by Participant 13, frustration was conveyed as communication was controlled and limited by the school division due to restraining platforms of communication.

Other participants described using digital platforms to communicate with their students. Students could log into the chosen platforms where the teacher could share their screens, provide

links, explain assignments, and meet. As described by Participant 41, “Without the daily interaction of face to face, it is really hard to stress the importance of their schooling and why they need to do their work even though they’re not at the school.” The loss of their ability to build relationships by interacting with students was also mentioned. The loss of being able to read a student’s body language was also a factor for some of the participants, something participants did not realize they rely so heavily on in-person.

Engagement. The need for student Engagement was something described within seven references as being difficult and a requirement for success in an online environment. Participant 1 expressed his/her descriptor of teachers in distance learning as needing to be charismatic. “It was hard to engage students with in-person learning, it is easily ten-times harder behind a screen.” Other participants, such as Participant 32, described the need for teachers to be engaging because of the “need to compete with the numerous distractions and competing interests for students in the home environment.” Participant 36 focused largely on engagement in her email response. This participant saw engagement levels as a barrier to her online classroom:

> I do a lot of discussion and group work in my class and found that I was unable to replicate that during remote learning; Discussions weren’t the same and class environment was not developed as soundly as it had been in person.

The struggle to maintain similar levels of engagement to the in-person classroom was time consuming and challenging for participants.

Professional Development and Foundations

Two themes emerged within Professional Development and Foundations codes: Professional Development for Teachers and Post-Secondary Experiences of Teachers including

university coursework and student teaching (see Figure 20). The Coding Reference Counts are presented in Figure 21.

Figure 20

Professional Development and Foundations Themes and Sub-Themes

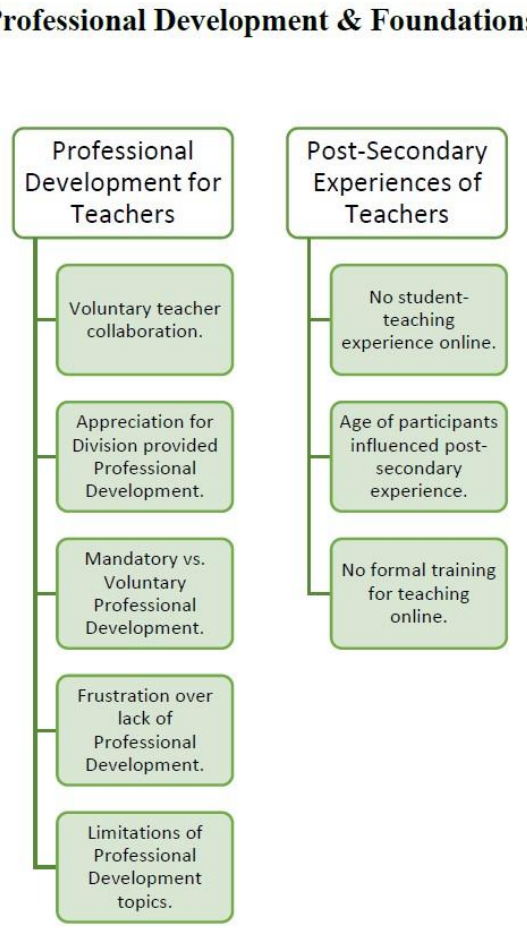
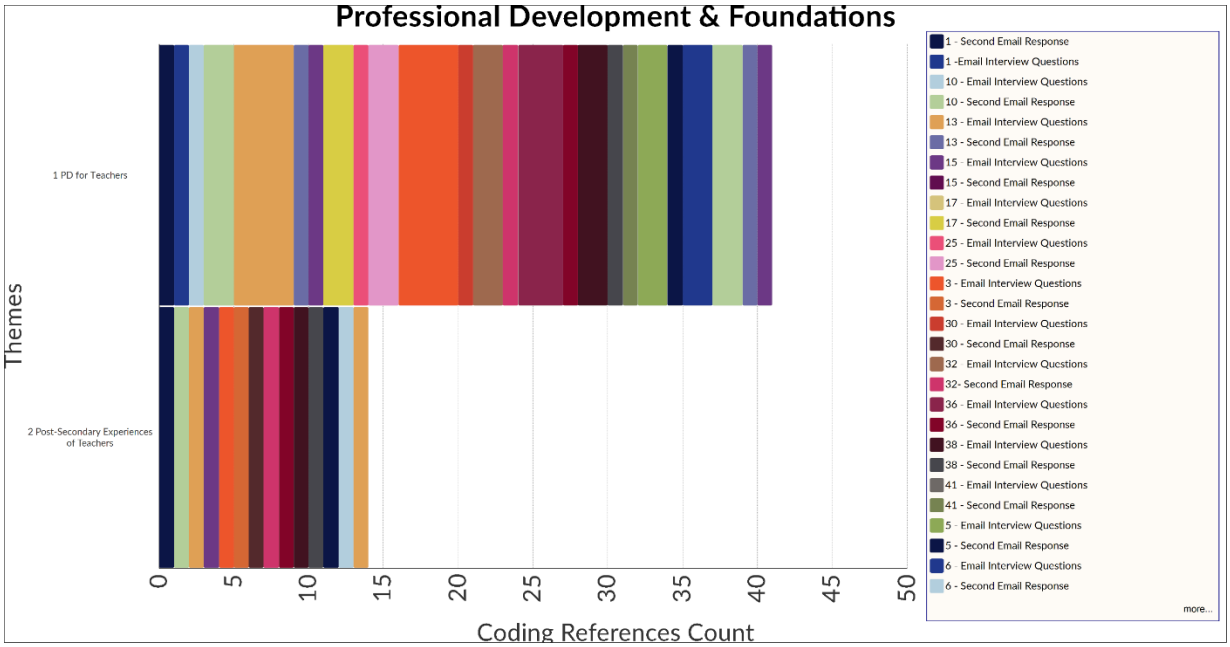


Figure 21

Professional Development and Foundations Coding Reference Count



Professional Development for Teachers. Professional Development for Teachers was the most common theme discussed with 41 references within the data. Fifteen participants referenced teacher collaboration and division professional development, whether mandatory and/or voluntary, as primary sources of professional development. Voluntarily forming cohorts among teachers was discussed by four participants in a positive light. As described by Participant 10, teachers independently "bounced ideas off each other." Social media was the platform noted by two participants as the primary platform used to communicate and share ideas with other teachers. Many participants described professional development opportunities offered by their school divisions. Some participants, including Participant 13 and Participant 25, described professional development that was required by school divisions to complete. Other participants expressed their gratitude towards school divisions who provided optional professional

development opportunities. As Participant 38 shared, “All of the free PD we were offered was optional. We are very lucky our division didn’t want to overwhelm us.” Participant 5 shared a similar mindset by identifying, “Our division provided tutorials, help desks, online forums, etc. for supporting staff to teach online. I felt that as best they could they also worked on supporting mental health.” The optional professional development was appreciated by Participant 5: “There was acknowledgement in our division that the steep learning curve in working with remote learning and technology was heavy enough PD for our staff – and so we gave as much grace and leeway as possible.” Alongside the positive feedback, was also negative viewpoints towards the professional development provided to participants. A number of participants expressed their frustration with the lack of professional development provided. As Participant 13 identified, “Lack of professional development on the platform the division has chosen to use is a significant barrier.” Participant 3 shared a similar experience:

> I am not aware of any resources that I can utilize to gain knowledge concerning distanced [*sic*] education. I feel as though this topic is not being discussed enough. School divisions may be posting resources online but teachers have to really look for that information as it is not at the forefront of education even though online learning has become prevalent due to the pandemic.

Concerns over the limitations of professional development topics was also expressed. Participant 15 commented on the lack of professional development for teachers and what was offered, “were more so geared towards student mental health and less about navigating the unique obstacles of online learning.” Teacher professional development was represented within the data very strongly, whether negatively or positively.

Post-Secondary Experiences of Teachers. Teacher preparation via Post-Secondary

Experiences of Teachers whether it was through classes or student-teaching experiences was discussed and referenced 14 times in the data. None of the participants experienced any type of student-teaching within the field of distance education. The age of the participant seemed to also have some influence on post-secondary preparation as technology has evolved over the years. As Participant 32 describes, “When I was in university, email and the Internet were just beginning, so no I didn't.” Participant 38 shared a similar experience as, “I finished at the U of R in 2013 so there wasn’t as much as a focus on digital education.” Many participants described electives they could take at a post-secondary level. These electives did not focus on how to teach in an online environment but focused on technology tools. Many participants shared a similar view with Participant 3: “Most teachers were trained in a way to successfully teach students in a classroom. Most teachers did not receive formal training for teaching students online. Due to the pandemic, many teachers were forced to teach their students online.” Many participants identified areas of Professional Development and Foundations as barriers or a way to improve the experience of teaching distance education.

Administrative Leadership

Three themes emerged from the data when focusing on Administrative Leadership: the negative effects of Supplemental Learning, Collaboration Among School Divisions, and Administrative Support (see Figure 22). Administrative Leadership was referenced 38 times (see Figure 23).

Figure 22

Administrative Leadership Themes and Sub-Themes

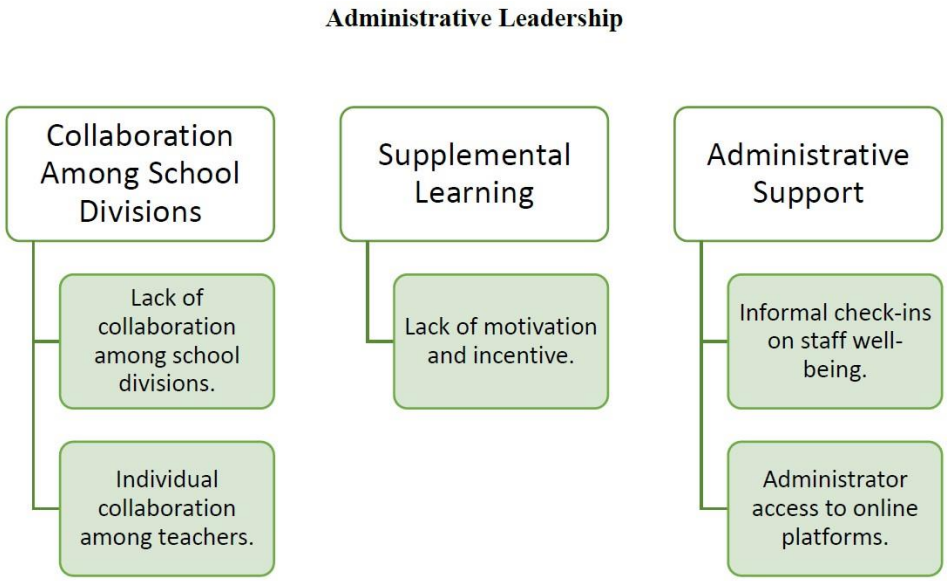
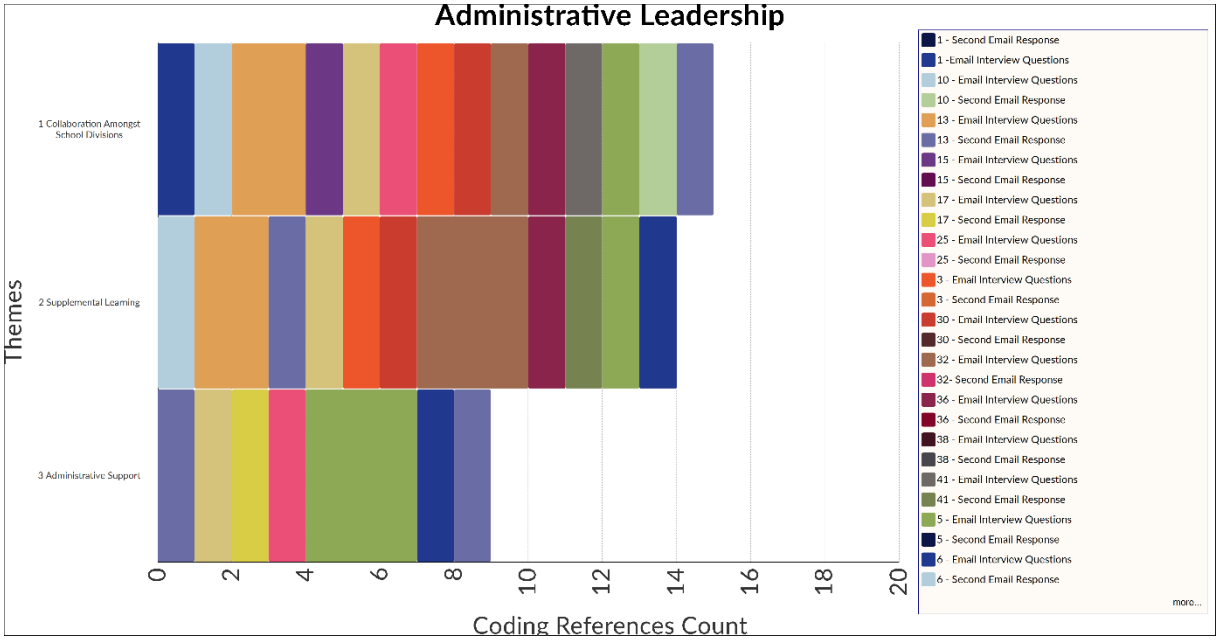


Figure 23

Administrative Leadership Coding Reference Count



Collaboration Among School Divisions. Participants noted the level of Collaboration Among School Divisions. 16 references were made discussing the lack of collaboration among school divisions. Remarks were made similar to Participant 1, “Most divisions seem to be doing their own thing and organizing their online learning in different ways.” Strong emotions were shared by some participants. Participant 9’s voice was clear in her response, “Collaborate between school divisions? Hell no. Collaborate within a school division, yes but there were a lot of differing perspectives on how that collaboration should happen and when it should happen and what the roles were of division staff.” As described by Participant 3 there is a desire for collaboration, “I am unsure if school divisions collaborate to provide online learning resources but I certainly think they should in order to provide teachers with the largest amount of resources and support as possible.” Although school division collaboration was not identified by most participants, collaboration among teachers through social media was mentioned by two participants. Participant 5 and Participant 7 were the only participants who described supportive collaboration between two Saskatchewan public school divisions.

Supplemental Learning. Another prominent theme discusses was supplemental learning. The Government of Saskatchewan announced in March, 2020 that all classes in Pre-K to Grade 12 schools would be suspended and a supplemental curriculum implemented (Government of Saskatchewan, 2020b). The directive from the Saskatchewan Ministry of Education that participation for students was optional was noted and discussed in 14 responses. All responses expressed very similar negative viewpoints towards the optional learning. Participant 13 wrote that, “Sending all students home in March 2020 with the assurance that they would go on to the next grade did nothing for their education.” Participant 41 described the negative gradual change in student engagement:

> At the beginning of the pandemic the students I was responsible for did wonderful and worked hard! Then the government made the statement that all kids will pass to the next grade and graduate. After that the students seem to do the assignments they wanted to do and by the end really were not doing anything.

The lack of motivation and incentive to continue learning was described by multiple participants, largely due to the optional learning that was put in place by the Ministry of Education. Several participants described how the lack of motivation had an impact on their students. Participant 17 described, "Overall, the majority of students had low motivation to learn while online. In my opinion, I believe this was largely because grades were frozen as of March 17th, 2020, and online learning was not made mandatory." Participant 32 shared a similar experience, "for many students and parents, that seemed to result in less motivation to put forth full effort into the work and less urgency to do the activities and assignments." The confusion some families experienced due to questioning of why supplemental learning even existed if it did not count towards a final grade was articulated by Participant 13. Participant 10 also experienced frustration with the lack of student engagement:

> I really believe that the real reason for my students [sic] was that it was optional and "didn't count" towards their report cards. No matter how many times I stressed the importance of learning for the following school year, many kids were not engaged.

Overall, the negative effects of the Ministry of Education's decision to make supplemental learning optional was prevalent in the data collected from Saskatchewan teachers.

Administrative Support. Participants also described situations of Administrative Support where school administrators checked in on their well-being. Seven responses described administrative involvement to some degree whether it was through access to online classroom

platforms or simply just to check-in. School administrators who checked in informally on their staff's well-being were fondly described by a number of participants. Participant 9 shared a message that four other participants also similarly replicated:

> They would do daily or minimum weekly check ins with each of us staff members (including EAs, administration assistants, etc.) to ensure that we were taking care of ourselves first and foremost, that we knew that we weren't bad teachers, and to see if we needed anything.

School administrators having access to participants online platforms was described by five participants. Each of these participants described situations where their administrators could access their online platforms at any time, often unannounced. One participant noted, "administration had access to all of our online platforms so that they were able to see assignments that students were working on, and join in our online meetings occasionally" (Participant 17).

Effective Evaluation

Effective Evaluation was the least discussed component within the Conceptual Framework. As seen in Figure 24, two themes emerged with the final component of the Conceptual Framework: Assessment and Evaluation of Student Learning and Evaluation of Teacher Expertise, referenced 30 times (Figure 25).

Figure 24

Effective Evaluation Themes and Sub-Themes

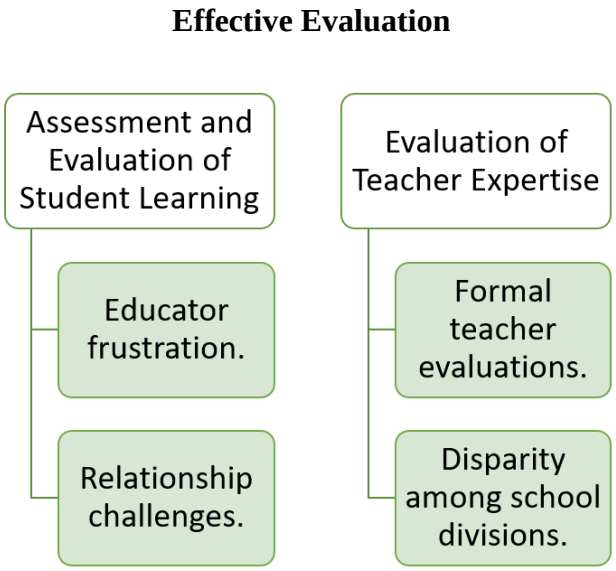
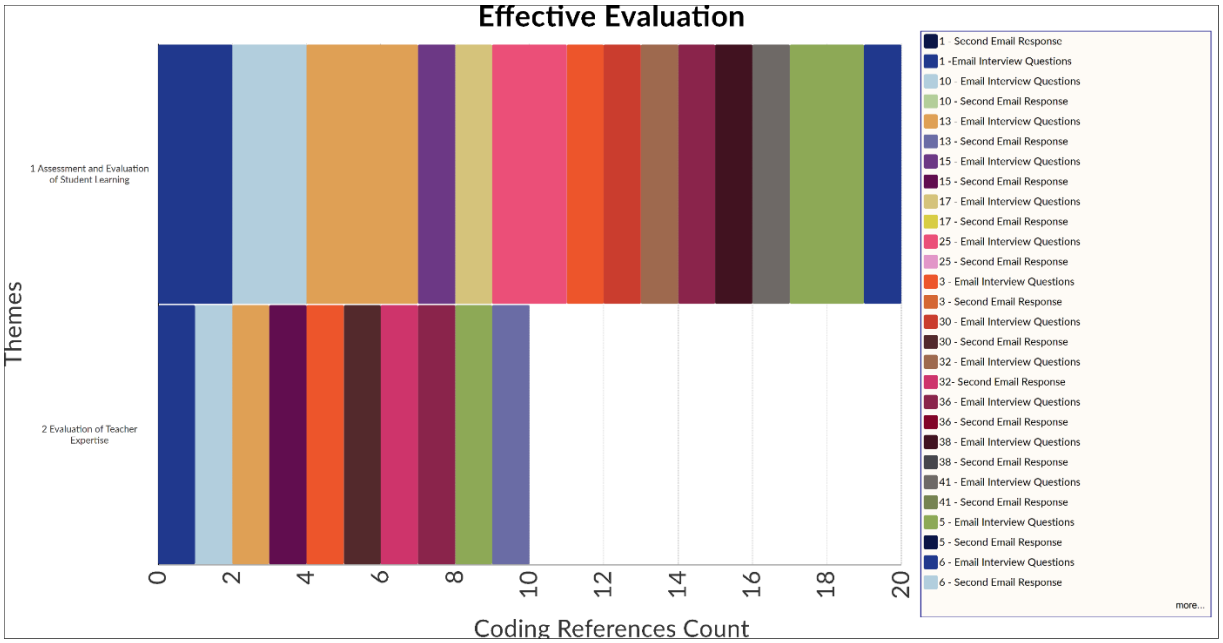


Figure 25

Effective Evaluation Coding Reference Count



Assessment and Evaluation of Student Learning. Assessment and Evaluation of Student Learning was referenced 20 times and was often expressed with a frustrating tone. As Participant 5 described, “In terms of evaluation progress, this was a challenge for teachers rather than a positive.” Several of the participants expressed a similar negative mindset due to the optional aspect of the learning, use of a digital platform, a lack of motivation from students to complete the assessments, student frustration, and no end to the means. Participant 36 referred to the connection between the relationships built online with students and evaluation: “Relationships are tougher to maintain, which translate over to the evaluation. When students were disengaged for long periods of time, I was unable to hook them back in, no matter how hard I tried.” Evaluation posed challenges for participants.

Evaluation of Teacher Expertise. Lastly, because of employment contracts and legalities, formal teacher evaluations occurred during this research study. Evaluation of Teacher Expertise was completed by some school administrators and referenced in the data 10 times. Five participants shared the similar view that formal evaluations were cancelled during supplemental learning. Participants 1, 10, 15, 30, and 36 noted that formal evaluations did not take place. Three participants described experiences of formal evaluations during Saskatchewan’s supplemental learning. Participant 3 shared her thoughts:

> It came as a shock to me when I had principals sit in on my online classes. I understand that evaluation definitely has a place in the classroom. I felt disheartened knowing that I would be evaluated on online teaching because I taught myself how to online teach, I did not receive formal training on online teaching, and I knew that I teach best in person. I felt as though I was set up for failure and put in a disadvantaged position in comparison to being evaluated in an in person classroom setting where I received prior training.

The disparity of teacher evaluations among the school divisions within the province was evident in the data. In general, teachers presented feelings of gratitude when formal evaluations were cancelled. When teachers were involved in the evaluation process, frustration and disappointed was evident.

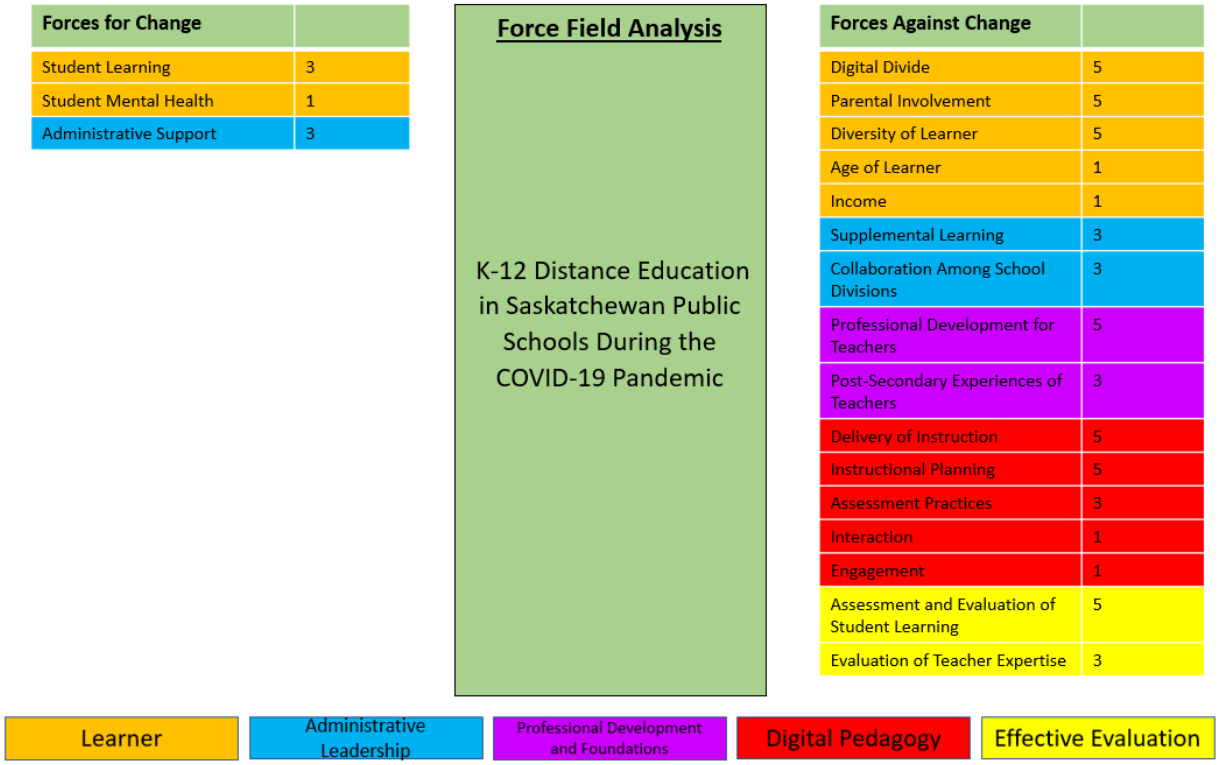
Force Field Analysis (FFA)

A FFA was used to examine the themes that developed within the data. Understanding and valuing the themes within a FFA was subjective of the researcher (Kankaras et al., 2020). Each of the themes within the Conceptual Framework were examined and queried using the Matrix Coding Query in NVivo to discover connections and significance of the themes. The more the theme appeared across the components of the framework, the higher the value assigned. Each of the Matrix Coding Queries of the components of the Conceptual Framework (Learner, Administrative Leadership, Professional Development and Foundations, Digital Pedagogy, and Effective Evaluation) were graphed and are presented in Appendix I. Values of 5, 3, and 1 were assigned to each of the themes based on the number of Coding Reference Counts produced from the Matrix Coding Queries. The more the themes appeared within the framework, the higher the value. The value given is based on the researchers perceived impact (Kankaras et al., 2020; Kumar, 1999). Themes that appeared multiple times (17+) were identified as significant factors and scored a stronger value (five). Themes that appeared 9-16 times within the frameworks were scored a mid-value (three). Lastly, themes that appeared in only a few of the components with reference counts of 1-8, were scored a weaker value (one). Driving forces for change and restraining forces against change were then identified by the researcher by determining the effect the theme had on distance education in Saskatchewan during the pandemic. Driving forces worked to support distance education in Saskatchewan during the pandemic, while the

restraining forces blocked progress of distance education in Saskatchewan during the pandemic. By acknowledging the complexity of these forces, a pragmatic analysis is possible (Swanson & Creed, 2014). Figure 26 displays the FFA assigned values to each of the themes that emerged within the Conceptual Framework components, as well as the identified forces for change and forces against change.

Figure 26

Force Field Analysis (FFA) Identification and Assigned Values

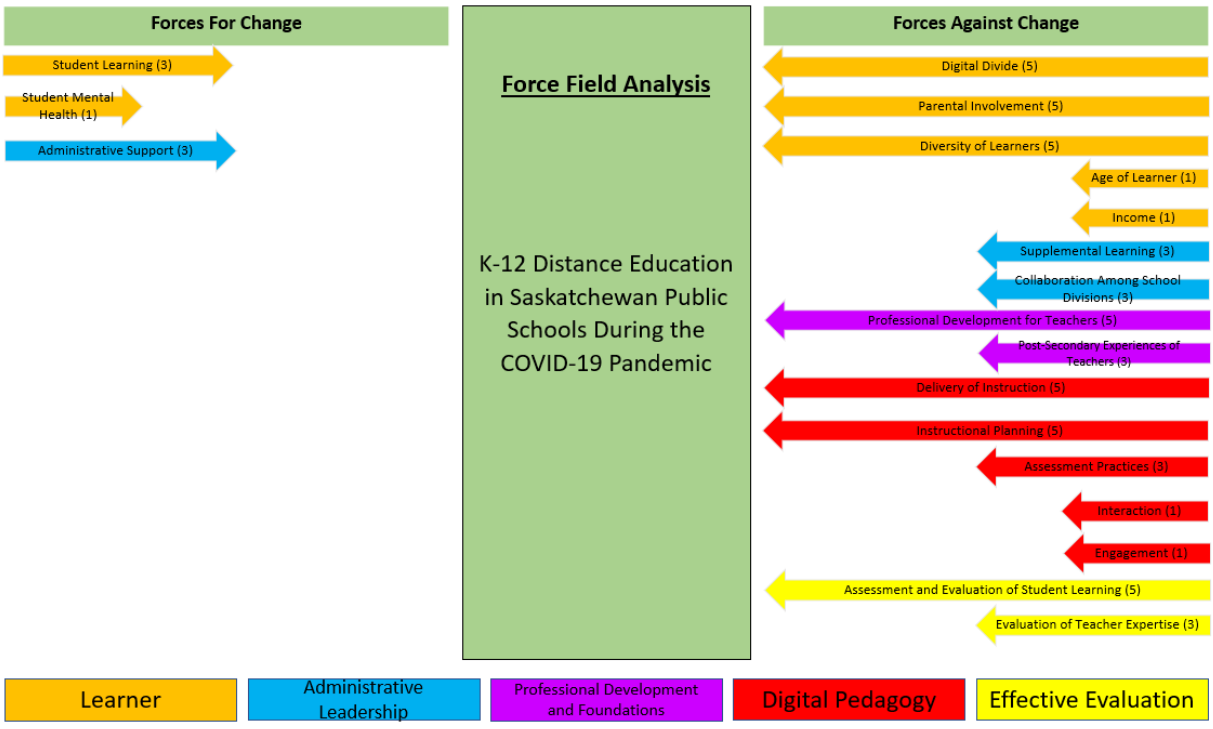


Each of the assigned values were then presented in a Force Field Analysis Model (Figure 27). This model enables a visual representation of the strength of each of the forces for change and each of the forces against change to aid in analysis (Lock, 2019). It is important to remember that a FFA undertaken by different groups can surface different perceptions (Swanson & Creed,

2014). As Swanson and Creed (2014) explain, there are different approaches to solving every unique problem and a FFA is a tool that helps to manage change by identifying factors that must be addressed in order for change to be successful. These identified factors are critical components of furthering the insider action research. The forces identified will be used in Chapter 5 to identify possible next steps to help reduce the forces against change, as well as to identify next steps to strengthen the forces for change. Both the CoI and TPACK framework will be used to support these suggestions. In order for distance education to experience successful changes in Saskatchewan, driving forces must be strengthened and restraining forces weakened (Lock, 2019).

Figure 27

Force Field Analysis (FFA) Model



Chapter 4 Summary

In this chapter, I outlined the characteristics of the participants included in this study. The primary research question (How do public school educators in Saskatchewan K-12 schools perceive the state of distance education in the province?) was explored using the researchers Conceptual Framework. The data collected from the email interviews were coded with NVivo and themes and sub-themes identified within the Conceptual Framework. These themes were discussed as per the framework and supported using participant quotes to provide evidence of the data. A FFA was also presented identifying the driving forces and restraining forces identified by analyzing coding of the data. Chapter 5 will address the research questions directly by including analysis of the data and how it integrates with the primary research questions that have guided the study along with the four sub-questions. Context of the study, interpretation of the data, recommendations supported by the CoI and the TPACK framework, and future research potential compose Chapter 5.

Chapter 5: Discussion and Conclusion

Introduction

This final chapter will provide a discussion and conclusion of the study which aimed to provide a deep and complex representation of the voices of Saskatchewan K-12 public school educators teaching online during the COVID-19 pandemic. Chapter 5 will also present possible steps and action plan items to further the insider action research for a more robust development of K-12 distance education in Saskatchewan, and future research suggestions. The CoI and the TPACK framework will be used to support these recommendations. Limitations of the study will also be presented. A conclusion of the research findings will be presented to finalize the research and knowledge mobilization strategies anticipated to share the research beyond the dissertation committee.

The researcher's positionality is presented again in Chapter 5, providing subjectivity to the research results. Positionality requires the researcher to acknowledge and allow views, values, and beliefs of the researcher to be presented (Holmes, 2020). As Holmes (2020) describes it is important to recognize positionality is unique to the researcher and can impact aspects of the research, including the process. It is important for the researcher to disclose and acknowledge themselves in their work, aimed to help understand their influence on the research.

Summary

COVID-19 shifted the Saskatchewan K-12 educational landscape in an unprecedented way. Within a seven-day period educators in Saskatchewan had to make a quick shift from in-person learning to distance learning with very little guidance. This exploratory qualitative insider action research study captured the voices of 16 public school K-12 educators in Saskatchewan through email interviews. The pragmatic nature of this study, rooted in social constructionism,

used the voices of the teachers to evaluate and present possible action plan items to strengthen the distance education system for public schools in Saskatchewan.

The primary research question (How do public school educators in Saskatchewan K-12 schools perceive the state of distance education in the province?) was examined using the researcher's Conceptual Framework. From this examination, a FFA was used to identify imbalanced positive forces/factors and negative forces/factors that have influenced, driven, or impeded change. The FFA was used to help address the four sub-questions presented in the research.

Interpretation of the Data

Research Question One - Positive/Valuable Experiences

What are the positive/valuable experiences of public educators in K-12 distance education in Saskatchewan during the first wave of the COVID-19 pandemic?

Participants identified some experiences or themes of value (forces for change) that had a positive effect on K-12 education during the COVID-19 pandemic (see Figure 27). These forces worked to support the goal of distance education in Saskatchewan during a stressful time and were represented in a positive light, impacting either teachers or students in a positive way. Identified also as driving forces, these experiences (student learning, student mental health, and administrative support) provided evidence that distance education offered some value to Saskatchewan students during the pandemic. The positive experiences were outnumbered or outweighed in importance by negative experiences, according to the views described by Saskatchewan teachers, but the valuable positive experiences described provide a starting point to build upon for future distance education planning. By examining and strengthening from these participants experiences, distance education will grow stronger within Saskatchewan. As noted

by Lock (2019), for change to be successful, the equilibrium of the FFA needs to be shifted by strengthening the driving forces and weakening the restraining forces.

The strongest positive set of experiences that educators described fell under the Learner umbrella. As is typical in education, the learner is ultimately the reason for teaching and therefore this finding was gratifying to see. Aspects of student learning were influenced positively during this difficult time by addressing student mental health and providing opportunities to increase online and distance education confidence. Students experienced less peer pressure during the pandemic and, at times, focused on the flexibility that distance education provided them as learners. Based on the views of teachers, some students felt more comfortable learning in an online environment as they sometimes struggled in an in-person learning experience for a variety of reasons. The flexibility both students and teachers had experienced in an online environment had a positive impact on their distance education experience. Many educators felt they could provide different or new digital approaches to individualized support to students in an online environment because in a face-to-face environment the overwhelming demands on educators sometimes hinder meeting students individual needs. Being forced into an online learning environment also forced some learners to experience conditions of education they would never have, and in the end, it turned out positively for them. Many of these learners would not have experienced online learning had it not been for the pandemic yet in the age of digital life-long learning, confidence with digital distance education will be necessary. Not surprisingly, the level of learning flexibility described by several participants was depicted with appreciation and enlightenment.

Personal Positionality Four

Experiencing supplemental learning first-hand as an educator and administrator during the first wave of the pandemic was an eye-opener for me. The flexibility online learning provided students and staff was able to shine a light on areas that may not have been so visible had a forced change not occurred. Many conversations evolved amongst school staff discussing various aspects of learning online and how to continue to use some of the elements to strengthen education as we move forward. In some cases, we were forced into uncomfortable situations that we, as educators, may not have ventured into without the push into distance learning. Some of the experiences we had with students, parents, and other staff members provided a basis for conversation around how we strengthen educational attributes and continue to move forward with how we educate in the future. I feel as though education has made a shift through the pandemic that has provided the "green light" for educators to reach outside the box and to make changes to how things have always been done. Surprisingly, I experienced feelings of excitement as educators discussed aspects of online learning that have provided positive outcomes for students. I also felt optimistic that educators have experienced a change in education that can have a profound effect for the future. I was also very proud of the work done by teachers and their desire to make students experiences as positive and interactive as they could, even though they were not always comfortable with using the tools of distance education. The positive effects learning online has demonstrated through the pandemic provide educators with the positive support to work towards making positive changes with what has worked in the past.

Abridgement Question One

In my dual role as an administrator and as a researcher, the recognition of the importance of distance education knowledge base in administrators is imperative. Supported by the Conceptual Framework (Figure 6), Administrative Support was evident with some positive feedback but has potential to strengthen as administrator's knowledge of distance education becomes greater. It is relieving to see that, for the most part, administrators in Saskatchewan are working alongside their educators to support distance education, as much as their current knowledge of online learning allows them. It is important for administrators to try to enhance their understanding of distance education and to eliminate their bias toward the merits of face-to-face learning. Remote learning provided a bias view of what distance education can provide. Tapping into those that have the knowledge base of distance education to help guide division decisions regarding online learning is an imperative part of distance education success. By continuing to educate administrators in the field of distance education including technology, pedagogy, and leadership, the researcher anticipates that this support will grow stronger for online educators in Saskatchewan. As Day (2012) states, strong leadership helps to support the identity of teachers, therefore increasing their classroom effectiveness. The positive relationship between administrators and teachers is imperative for the success of online learners.

Research Question Two - Barriers

What are the barriers public educators in K-12 distance education in Saskatchewan are facing during the first wave of the COVID-19 pandemic?

Experiences identified by participants that created challenges or posed problems for participants were identified as barriers to the success of distance education in Saskatchewan during the pandemic. These barriers crossed were identified at varying degrees of importance.

Not surprisingly, the number of barriers, or forces against change were more numerous and their overall weighting was more than the positive forces for change. The shift to supplemental learning was done so quickly, no one from teachers to principals to ministry officials had time to prepare for such a drastic change.

The Digital Divide was a significant barrier found within the data. Participants felt very strongly that the digital divide had a profound negative affect on aspects of the Conceptual Framework. Ultimately, the Digital Divide had a negative impact and posed challenges to students, parents, and educators in a variety of ways. From preventing communication between students and teachers to affecting engagement levels in learning, the digital divide caused additional stress and frustration to an already stressful situation. Digital Divide is a provincial issue, if not national and worldwide. Evidence of the Digital Divide within the data was overwhelming negative. The province of Saskatchewan must recognize the lack of internet connectivity throughout the province, which is also a national issue, as a hindering factor in education. School divisions, along with the Ministry of Education, must move the topic of the Digital Divide to the forefront of their conversations as it is negatively dominating the lives of many of our students, parents, and educators.

Unlike the Digital Divide, the Daily Divide did not present itself in the data. Most educators were striving to get devices into the hands of every student possible, therefore there was no discussion from participants regarding limiting devices used by students.

Personal Positionality Five

Living in a technology rich society, it is hard to believe that the Digital Divide is something so evident in Saskatchewan. The Digital Divide reaches into every community and

nearly every household…something that I, as an administrator, never recognized the extent of the effects it has on students, their families, and fellow educators. Until I experienced providing devices to families who required them during supplemental learning, I did not recognize how many families would require support. Devices, as well as hot spots, were critical elements of providing opportunity for student success. Many parents also struggled with ensuring all their children had access to a device, many of which did not recognize this as a challenge until supplemental learning began. In several cases, parents were trying to juggle their children, whose age ranged from high school to early elementary, with only one device. The needs of each of their children were very different in terms of technology. It appeared families would reach out to our educators as these challenging struggles became very frustrating and was adding additional stress to the situation of learning from home. In some cases, parents were trying to use their personal cellphones as a learning device for their children as well as the primary point of communication for their family. As our school staff continued to provide devices and opportunities to lessen the Digital Divide the stress level of our families seemed to shift away from devices being the cause. In some cases, teachers were driving to areas with stronger Wi-Fi and parking outside of schools to access Wi-Fi due to lags in coverage. Geography itself determined connectivity. I learned to appreciate the individual situations each of our families and staff were experiencing as they tried to manage and support children through a new way of learning.

Abridgement Question Two

Parental Involvement also shone as a significant barrier. Parents were thrust into the educational situation as quickly as students and teachers were. Many were overwhelmed with the

stresses the pandemic posed on their family's welfare, let alone to help guide their children through education. Most parents send their children to school to obtain an education because they cannot commit to home schooling or guiding their children through online learning. During the pandemic, many parents did not have a choice and were forced to try their best to support their children. In many cases, this support did not take place - not necessarily because parents did not want to, but because many of the parents did not have the means, the skills, or the time to do so. Many times, the teacher relied on the parent to ensure their child was engaging in online learning and had the technology available that students required to participate. Without this support, teacher presence was impacted as they struggled to gain access to students.

The Diversity of Learners was identified strongly as a barrier during supplemental learning. This diversification of learners can also be identified as a difficult situation in a regular in-person classroom. Many students in Saskatchewan classrooms have diverse social, emotional, and learning needs, some more complicated to manage than others. Many students with diverse learning needs require strong relationships of support with their teachers. Many of the educators interviewed felt they could not meet the unique needs of the students who required special supports through alternative programming. Some participants described their lack of training to use technology to adapt learning for students with special needs and were unable to provide effective instructional approaches to students using technology. Participants also described how many times students work on individualized program goals that are predominately non-academic in nature and can be difficult to be worked on, assessed, and tracked through distance learning. Feelings of defeat and incompetency was reflected through the voices of many of the teachers as these students seemed to fall between the cracks of supplemental learning.

Several extraneous influences were identified as barriers. There are some contributing factors that educators do not control but are still influential upon student success. The age of the learner was one of these factors. The younger the student, the more difficult educators felt it was to engage them in learning. These young learners relied heavily on parents support and as mentioned earlier, this support was not always strong. As students got older and more independent the age of the learner seemed less of a factor. Family income was another influence that seemed to be a barrier but again, this is a contributor that is out of the educator's control. The Digital Divide often overlaps with the influence of family income as many times income can be a deciding factor when accessing technology.

Two barriers presented themselves within Administrative Leadership: supplemental learning and collaboration among school divisions. Supplemental learning was negatively discussed in detail throughout many of the email interviews and the FFA analysis identified it as a barrier. Many educators felt that the directive of optional learning and a guaranteed pass to the next grade from the Ministry of Education tied their hands as educators as many described the decline in student engagement. The loss of the means of student work and its assessment for the end result of a pass to the next grade had a profound negative effect on the participation of students once they started to feel as though there was no gratification, reward, or purpose for doing online learning. Not surprisingly, students began to stop participating in online learning as time progressed through the pandemic. Educators described the loss of the incentive to participate. Once supplemental learning was announced and grades were no longer a factor, student engagement took a drastic decline.

The lack of collaboration among school divisions was mentioned by some of the participants, largely described as a barrier. Some participants had a desire for school divisions to

work together to improve distance education, while others had no knowledge of school divisions collaborating. There are pockets of expertise throughout many school divisions that could offer insights to strengthen distance education programming and the digital curriculum required across the province. Some school divisions are further in developing their programs than others. From the FFA analysis, participants identified that the duplication of teacher work throughout the provice needs to be reconsidered with new models and incentives to support authentic curriculum development. Although not identified in the data, a solution such as Open Educational Resource (OER) processes would be beneficial. The lack of collaboration lends me to ask, is this a funding model issue…a model that has not likely changed substantially since public education in Saskatchewan began. Ultimately, school divisions receive funding from the Ministry of Education to operate. Would sharing of resources and expertise affect this funding model some way therefore school divisions shy away from collaborating to a certain extent?

Aspects of Professional Development and Foundations were identified as barriers as well. Ultimately, educators did not feel they had access to productive professional development that would help them to be prepared to make an instructional shift online. Professional development for teachers was described overwhelmingly in a negative context. Participants felt they were not provided with valuable opportunities to grow their knowledge with digital pedagogy, ultimately overlapping into other areas of the Conceptual Framework. In short, teachers did not feel prepared. Perceptions of post-secondary experiences of teachers was also described as a force against change. Teachers do not feel they have experiences from a university level that help to prepare them to teach in an online environment. In today's schools, it seems only fitting that educating our future teachers about the world of online learning would be a given.

Not surprisingly, Digital Pedagogy created many diverse barriers with different degrees of pressure points for the success of distance education during the pandemic. For many educators, they did not feel confident or comfortable being thrown into an online environment so quickly, with so very little preparation. Plain and simply, educators did not feel prepared to teach in a digital environment. Fifteen of the sixteen participants described, at some point in their interview, the importance of the knowledge of how to deliver instruction online and a new awareness of what entails digital pedagogy. The data stressed that just because an educator is effective in an in-person classroom, does not mean they will be effective in an online classroom. Many participants described their inability to understand how to use the technology tools to deliver outcomes to their students, not necessarily a misunderstanding of the technology tools themselves. Many educators described instructional planning and assessment practices to be challenging when in an online environment, many due to the lack of knowledge of digital skills and attributes. Many of the educators interviewed had a desire to be successful in Digital Pedagogy but they simply were lacking the time, supports, and professional development to do so. Ultimately, due to simultaneous and constant challenges of planning, creating digital content, instructing, and assessing in addition to learning and applying pedagogical and technological supports for increased student interactions and engagement, these multitude of barriers grew as challenges. Educators interviewed often expressed frustration regarding these barriers as in their hearts they wanted to do their job and see their students succeed. Mixed with the stresses of COVID-19 in their personal lives and trying to manage Digital Pedagogy, many of the participants struggled through their own positive mental health.

Lastly, evaluation of both student learning and teacher expertise created barriers as well. As mentioned previously, educators along with students, found it frustrating with the lack of

assessment involved in supplemental learning. Teachers did not get feedback on how they were doing at their craft. Largely because many administrators were also not confident in what online learning should look like, formal evaluations were often cancelled. The stress of the pandemic was sometimes discussed as the reason for cancelling formal evaluations, which was appreciated by those who discussed it. Some, on the other hand, expressed their frustration over being evaluated teaching in an environment they were not trained to teach in nor confidence in the quality of the evaluation – which could be grieved by the union - but also speaks to the lack of empathy by the principal. An unfair evaluation of an educator leads to an uncomfortable situation that can have a negative effect on the educator's confidence and potentially their career.

Research Question Three - Improving Access and Opportunities

What are possible steps for development that can improve access and opportunities within the formal education system for distance education in Saskatchewan?

As the barriers far outnumbered and outweighed the valuable experiences within the FFA, there is room for development that can help to improve access and opportunities within the formal education system for distance education in Saskatchewan. We can learn from the pandemic experience and work towards a positive change. The pandemic has shone a light on distance education in our province and it is the job of those of us in education to take this opportunity to move forward and continue to build the education pillar stronger in Saskatchewan, not only for current students but for the students of the future as technology will only grow stronger with time.

Using the FFA Model (Figure 27) to further the insider action research, the imbalance of the current situation of distance education in Saskatchewan during the COVID-19 pandemic can be further understood. There is an imbalance in the quasi-equilibrium (current state) that must be

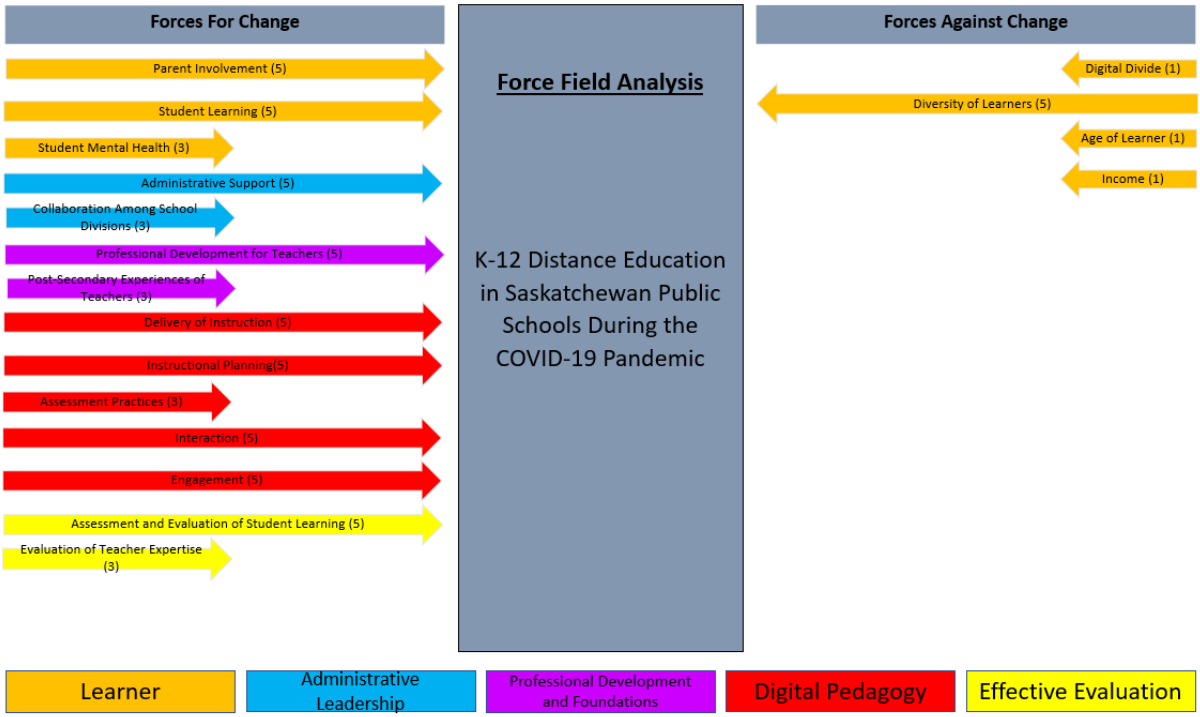
shifted to effect change (Lock, 2019). By using the FFA to facilitate discussion, the complex environment for change can start to take shape for distance education in Saskatchewan. As described by Lock (2019) there are three steps that are needed to achieve this change:

1. Unfreeze the driving and restraining forces that hold it in quasi-equilibrium.
2. Introduce an imbalance to the forces so change can take place (increase drivers, reduce restraints, or both).
3. Refreeze once change is complete and quasi-equilibrium is returned.

Some of the forces within the FFA can be increased, decreased, or changed from a restraining force to a driving force to impact the desired change. As demonstrated in Figure 28, proposed changes strengthening and weakening of forces, as well as change of forces are suggested and supported using elements of the CoI and TPACK framework. These suggestions would help to strengthen the current state of distance education in Saskatchewan and create a more balanced FFA. Ultimately, this visionary FFA would create a positive distance education experience for learners in Saskatchewan.

Figure 28

Proposed Force Field Analysis of Distance Education Framework

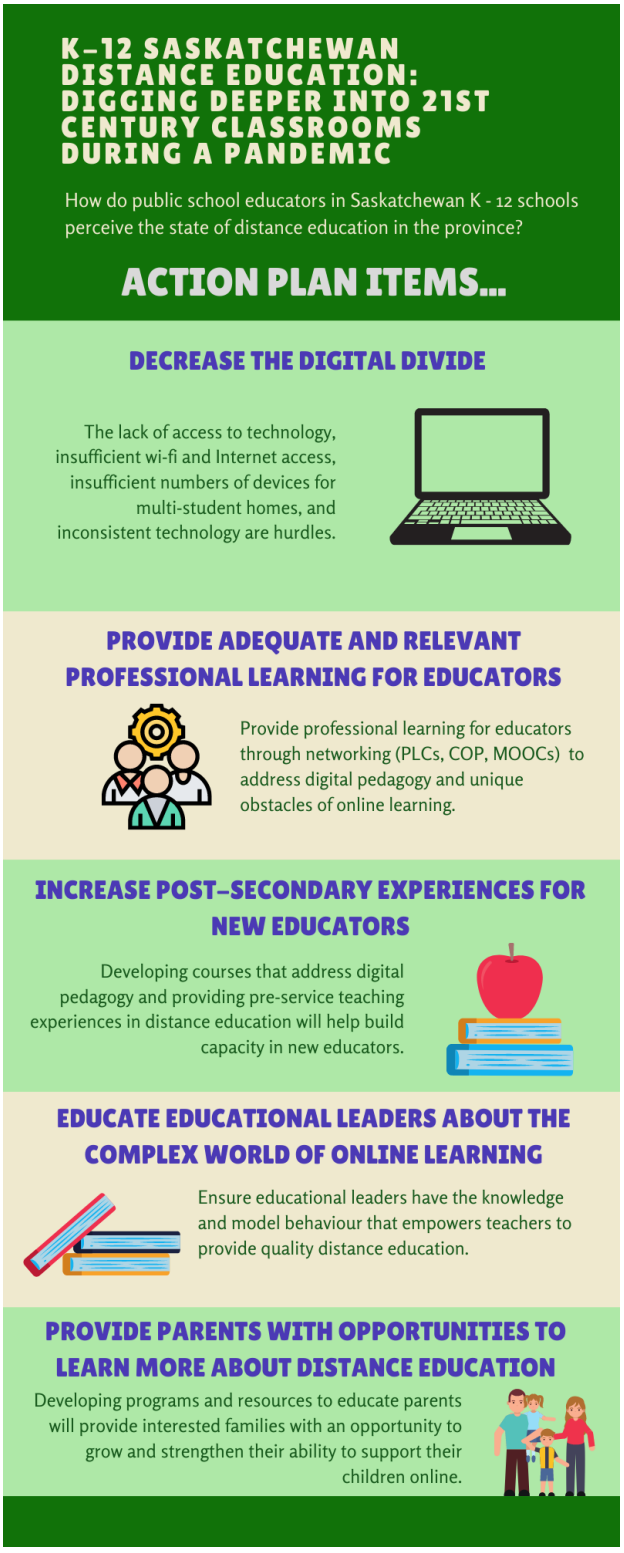


As these suggestions attempt to shift the equilibrium of the FFA, the top five suggestions or Action Plan items as indicated below will help to begin the necessary changes to strengthen the current FFA. When developing Action Plan items it is important to have adequate knowledge, including research, about what needs to be accomplished, and secondly to have a meaningful way to articulate the plan to stakeholders (Polla, 2011). As seen in Figure 29, five Action Plan items are presented in an infographic[1] and further explained in the following paragraphs.

[1] This Action Plan infographic is part of the researcher's knowledge mobilization and translation activity for the McDowell Foundation (http://mcdowellfoundation.ca/). The researcher was awarded the McDowell Foundation research grant in support of research that supports teaching and learning in PreK-12 education system in Saskatchewan.

Figure 29

Action Plan Items



1. **Decrease the Digital Divide** – Student access to the Internet and technology devices is imperative to the success of a distant education program. The Ministry of Education, along with school divisions within Saskatchewan, must make the topic of the Digital Divide a priority. Equitable access to education should not be an issue of social injustice and at the time of this research, many of our students are experiencing inequity. COVID-19 has highlighted the significant gap between the "haves" and "have-nots" (Womack, 2021, para. 1). Addressing the Digital Divide is part of committing to the TRC's Calls to Action, in particular number 8 which calls upon the federal government to eliminate the discrepancy in funding for First Nations students educated on reserves and those children being educated off reserves. This funding could be used to help eliminate the already daunting lack of technology and Internet resources, as well as ensuring northern and rural Saskatchewan First Nations students have equal access.

   The issue of solving the Digital Divide is a complex, interwoven issue that involves digital infrastructure, communication technologies, and funding models. Ensuring that students do not experience a lag in learning is a task not easily addressed. Both provincially and division level conversations must take place to develop plans and creative responses for immediate and long-term solutions to address the barrier the Digital Divide creates for many Saskatchewan students and educators. Tapping into existing resources, collaborating provincially, and utilizing the expertise of school divisions, companies, and communities can maximise collaboration to help reduce the digital divide (Womack, 2021).

   The digital divide is a roadblock for the successful integration of the CoI. Every component of the CoI (cognitive presence, social presence, teaching presence, and

emotional presence) is negatively impacted when looking at the affects of the digital divide. By working to illuminate the digital divide, we are looking at strengthening the CoI. From facilitation of learning (teaching presence) to exploring and applying knowledge (cognitive presence) to open communication (social presence) to providing emotional responses about ideas (emotional presence) …all of which are only possible in a digital learning environment if students have consistent access to technology and the Internet.

COVID-19 has exposed the inequality in education that many knew existed previously but was not starkly exposed (Womack, 2021). Collaboration among various groups is imperative to help reduce the digital divide as it is not a simple task to manage. Working alongside community partners will be necessary to address these concerns. Programs to provide devices, hot spots, group purchasing plans, improved Internet infrastructure, and school access are only a few of the ways schools, divisions, and the entire Government of Saskatchewan can begin to address the inequitable access to the digital world our students are currently facing. Decreasing the digital divide is a massive undertaking but with the awareness and support of various groups working collectively together, the impact of the digital divide can be decreased and equitable outcomes for students achieved.

2. **Provide Adequate and Relevant Professional Learning for Educators** – Teachers are life-long learners. To ensure teachers can offer quality education, they must continue to be involved in professional learning (Misra & Tyagi, 2021). Teachers are constantly building their craft; distance education should not be a forgotten or misplaced aspect of this craft. We need to ensure that teachers are stronger and more confident than they were

a year ago. As indicated in the data collected, teachers are more confident in the use of technology tools than they are in the digital pedagogy of teaching online. Educators in Saskatchewan are asking to learn how to teach in an online environment. By providing teachers with the skills on how to incorporate the CoI and strengthening the areas of the TPACK framework in themselves, confidence in teachers would likely improve therefore having a positive effect on Saskatchewan students. What better way to provide professional development for teaching online, then to offer the professional development through on online platform. Providing teachers with firsthand experience of learning online themselves provides a new perspective as an online learner!

Teaching in an online environment and teaching in a face-to-face environment require different skill sets. The CoI helps to establish the areas in which teachers can provide positive and effective learning experiences for students. Teacher knowledge of these areas is critical to their success and confidence teaching online. Placing a professional development focus on the CoI will work to strengthen these necessary skills for educators.

Working also to strengthen the TK areas (TPK and TCK) of the TPACK framework for teachers must also be a focus of the professional development. Many educators are confident with CK and PK. Their lack of confidence shines through when technology becomes the tool to reflect content and pedagogy. Professional development around how to use technology tools to plan quality and engaging lessons is crucial for the positive progression of distance education.

Professional learning for teachers needs to rely on a variety of opportunities, especially those provided in an online context to help mimic the learning students

experience during distance education. Professional Learning Networks (PLNs), Communities of Practice (COP), and Massive Open Online Courses (MOOCs) emphasize the strength of a network and supporting of colleagues. Educators engaging in collaborative discussion and information sharing outside of their immediate community provides a powerful opportunity for distribution of learning, ongoing rich professional conversations about digital pedagogy, and information sharing. During the first wave of COVID-19 social media was used to connect educators in idea sharing that was useful for many educators. This is a small piece of the PLNs that educators can access.

We must also ensure that professional learning for teachers is sustainable. Some prefer to not refer to the pandemic time-period of learning as distance education. Online learning during the pandemic was often referred to with the terms: “emergency remote teaching, pandemic pedagogy, hybrid learning, hyflex learning, and online pivot” (Dell, 2021, p. 244). With a focus on teacher learning that is related to online instruction, professional learning should not focus on terminology but build on the knowledge that currently exists. As described by Paesani (2020), some recommendations for teacher professional learning related to online instruction includes:

- Engaging with tools online
- Connecting pedagogy and content knowledge to technology
- Drawing on teachers’ previous experience and knowledge
- Reflecting on teachers’ previous experience and knowledge
- Provide ongoing support

Now that we are no longer in “triage mode” (Paesani, 2020, p. 295) related to distance education, we must take the time to develop sustainable differentiated

professional learning that takes into account various levels of experience and technological skills (Paesani, 2020). Focusing on the knowledge of the CoI and components of the TPACK framework, as well as utilizing PLNs, COPs, and MOOCs provides educators with various levels of experience with distance education to find and connect with similar levels of learning and goals. Simply put, continue to help teachers learn how to teach online in a networking and collaborative environment.

3. **Increase Post-Secondary Experiences for New Teachers** –Most teacher education programs are still not focusing on online learning (Azukas & Barbour, 2021). We are always in need of new teachers, especially during the COVID-19 pandemic and the years that are soon to follow. Many teachers have opted to resign or retire early due to not feeling comfortable and safe during the pandemic (Wong, 2020) therefore leaving opportunities for new teachers. Working alongside our post-secondary institutions, our teachers in training require more experience with distance education to improve readiness. Most new teachers have grown up with technology and demonstrate competency with using technology in their every day lives but in most cases they do not have a clear idea of how to integrate technology into teaching and learning (Papanikolaou et al., 2014). Technology cannot be seen as an isolated tool, but as a variable related to content and pedagogy as demonstrated in the TPACK framework.

Teachers often have a misconception about K-12 distance education (Barbour & Unger Harrison, 2016). Developing courses that address how to teach in an online environment and pre-service teaching experiences in distance education will help build educators' capacity. As described by Kim (2020), we may never be able to go back to how we taught before COVID-19. She describes the importance of looking ahead into the

future possibilities and provide pre-service teachers with opportunities to develop online teaching skills and improving their knowledge of the CoI and TPK of the TPACK framework. The experiences of many educators during COVID-19 could be described as emergency remote learning, not true and well thought out distance education. Providing pre-service teachers with a solid, positive, and effective distance education experience is necessary to build capacity in new teachers. Providing opportunities for pre-service teachers to also complete a course via online is a great opportunity for our post-secondary institutions to model an effective online learning environment.

Some pre-service teachers were thrown into the world of distance education over the course of the pandemic without choice. As described in an article written by McIntosh and Nenonene (2020), the experiences a group of pre-service teachers had teaching remotely during COVID-19 provided them with an opportunity to recognize the inequities in education as COVID-19 magnified the marginalized and vulnerable students. In the end, these teachers experienced a social emotional side of education that they may not have experienced in a "regular" pre-service classroom. McIntosh and Nenonene describe the stories of some pre-service teachers who witnessed the lack of resources and inequitable opportunities for some students in an online environment. For some of these pre-service teachers, their mission to make positive changes in education was fuelled. It is these authentic experiences of distance education that our young teachers, armed with growth mindsets, will carry with them into their future classrooms. Pre-service teachers were also learners during the pandemic. How do we teach future teachers to integrate the TPACK framework into their regular practice? Post secondary institutions must set the direction of future teacher training by being aware of where we

currently stand in terms of knowledge of digital pedagogy and distance education (Dell, 2021). All of which strengthens teacher knowledge of the TPACK framework.

4. **Educate Educational Leaders About the Complex World of Online Learning** – Our educational leaders are an imperative part of student success. It becomes difficult to lead a group of educators if you yourself are not confident or aware of the components of distance education and how to lead educators to be successful in distance education. Our educational leaders need to be aware of what a good, effective distance education program entails, including the CoI and TPACK frameworks. As described by the International Society for Technology in Education (2021), educational leaders are responsible to have knowledge and model behavior that empowers teachers to make distance education possible. School administrators are the first key to set the standards for quality instruction and student performance (McFarlane, 2011) therefore it is important for them to have the distance education knowledge necessary to set those standards. The incorporation of the CoI and the TPACK framework into educational leadership training has the potential to strengthen distance education programming across the province.

Organizations, such as the McDowell Foundation established by the Saskatchewan Teachers' Federation, can have significant influence on educational leaders. The McDowell Foundation provides educators with a research platform that explores innovative ways to meet the educational needs of students (McDowell Foundation, 2021). This platform provides opportunities for research and learning relevant to today's classrooms.

Leaders who are able to demonstrate the challenges of 21st century leadership skills, must model the value of distance education for students and educators (McFarlane,

2011). For example, distance education requires the dedication of school administrators who must work with their teachers to ensure that teaching and learning is efficient and effective (McFarlane, 2011). By ensuring Saskatchewan educational leaders, such as school administrators, superintendents, directors of education, and the minister of education are aware of the components of the CoI and the TPACK frameworks and their importance for online teaching success, we can continue to work towards building a confident system of support and leadership for distance education.

5. **Provide Parents with Opportunities to Learn More about Distance Education** – As seen within the data collected, parents play a key role in the success of online learners. Many parents may not be aware of how important of a role they play. During the pandemic, the parental involvement that was required to support student learning through distance education was impacted significantly (Ribeiro et al., 2021). Many parents struggled to balance their own personal work demands with the demands of supporting their children in an online environment. Parental involvement for some may have included reading nightly, ensuring technology was sufficient, ensuring attendance, communicating with teachers, and assisting with work. There are, however, some factors that can influence parental involvement that include age of the learner and parent level of education (Ribeiro et al., 2021). Developing a program and supports to educate parents would provide those interested families with an opportunity to grow and strengthen their ability to support their children online, ultimately supporting the components of the CoI.

    Helping parents to understand the significant impact they can have on their child's social, emotional, and cognitive presence is a key part of distance learning success. A guide for students and families prepared by Alberta Education (2019b) helps to increase

awareness and understanding of distance education and provides a starting point for Saskatchewan to develop family supports. A great opportunity would be to model this in an online format where the parents get to experience learning the same way their children would. Involvement of parents has positive implications for schools, families, and students to promote the success of student learning in distance education.

Research Question Four - Future Research

What are possible steps for future research that can improve access and opportunities within the formal education system for distance education in Saskatchewan?

This study worked to present the voices of Saskatchewan teachers during a very challenging time in education. Being a teacher in Saskatchewan during the COVID-19 pandemic threw educators into what many felt was an unstable, online environment. One area that may be explored in future research would be to repeat with a focus on the learner as opposed to educators. By shifting the research questions to focus on the experiences and voices of the learners, a different insight would be given into the experience of learning online during the COVID-19 pandemic. A voice of the learner has the potential to add a variety of themes to what has already been identified.

Parents of children in K-12 experienced the stressors of the pandemic in a variety of ways. COVID-19 impacted parents of school-aged children throughout the multiple challenging roles they played (Hatzichristou et al., 2021). Exploring parental perception and the impact the pandemic had on the lives of parents is an area of future research. This research may help to identify specific areas of supports that are required for parents. Adding a voice to parental stressors and coping skills will help to provide a different viewpoint of how the pandemic has placed a burden on the people of Saskatchewan.

Another future research area to explore would be to delve into the voices of educators who were involved in distance education during the 2020-21 school year where many schools provided mandatory distance education opportunities based on the threat of the COVID-19 virus. The removal of supplemental learning and movement into mandatory online learning could provide a shift in perspective from educators who have already had the experience with supplemental learning.

Researching further into how the TRC's Calls to Action can be met using distance education is another possible future research topic to explore. Looking further into how the TRC's Calls to Action 8, 10, 16, and 63, can be met using distance education. Using distance education to respond to the Calls to Action is an opportunity to expand the need to educate and commitment to implement the recommendations of the TRC. Using a challenging time in education during a pandemic to gather information that has the potential to have a positive, profound effect on the future of Saskatchewan students is a valued research opportunity.

Limitations

Although this study presented a variety of themes that affect K-12 distance education in Saskatchewan, there are a few limitations that should be noted. First, the data collection method provided a snapshot of online learning during the pandemic. The use of 16 email interviews limits data collection to only a small group of educators. This research does, however, provide a foundation for future discussion and further research into the topic of K-12 distance education in Saskatchewan.

Also noted when using FFA, much of the interpretation of the analysis is left to the researcher's interpretation that draws heavily on the researcher's background as an educator and

researcher. Attributing scores to the forces presented is determined through the critical lens of the researcher but minor differences could occur if performed by another researcher.

Lastly, the study was limited to the voices of K-12 teachers only. The study only collected the experiences of educators, leaving the experiences of the learner unaddressed. Being that some of the learners in K-12 education are very young, including them in the research would have been a difficult task to ensure data was not skewed by other influences, such as parents. It would, however, be interesting to compare the experiences of both groups.

Conclusion

Reflecting on the timing and intensity of this study can be emotional as education touches the lives of each and every one of us. It would be interesting to reflect upon these interview questions if they were provided to educators in the current state of education as COVID-19 continues to challenge our education system and the structures that are in place. An important reflection would be to identify areas of the Conceptual Framework that may have already evolved or made steps in the direction of a positive change.

Strengthening distance education in Saskatchewan can help to strengthen the educational injustice that current students in Saskatchewan are facing. When using a FFA, the ultimate goal is to strengthen forces for change and weaken forces against change. Ideally, by weakening these forces against change action areas have developed and hopefully will gain ground in the field of education. Working to “cut the tie” between COVID-19 and its association with distance education is a much-needed step to improve the current views of online learning. Distance education deserves a respectful and planned approach to education in a post-pandemic world. Many views of distance education are based on the experience of educators and learners during the pandemic. The field of education needs to work to change these views.

This study endeavored to provide a voice to K-12 Saskatchewan public school educators. The Conceptual Framework that developed from this research provides a starting point for change for distance education in the province of Saskatchewan, among other provinces and regions beyond Canada. K-12 online learning is under researched, yet we need to give this area of education the respect that it deserves in development, as well as future research. COVID-19 has magnified many inequalities and has revealed emerging vulnerabilities in education systems (Ali, 2020). Research to support equitable and meaningful distance education is the end goal of this study. The pandemic has hit the "fast-forward button" (Aslam et al., 2021, p. 1) on distance education. Some of what we need to ask ourselves is: What has COVID-19 taught us about our education system? How will education be inspired to change? We must do better.

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Appendix A: Ethics Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: **24204**

Principal Investigator:
Mrs. Kelsey Shields, Graduate Student
Faculty of Humanities & Social Sciences\Doctor of Education (EdD) in Distance Education

Supervisor:
Dr. Connie Blomgren (Supervisor)

Project Title:
K-12 Saskatchewan Distance Education: Digging Deeper into 21st Century Classrooms During a Pandemic

Effective Date: February 05, 2021 **Expiry Date**: February 04, 2022

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date: February 05, 2021**

Michael Lithgow, Chair
Faculty of Humanities & Social Sciences, Departmental Ethics Review Committee

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Athabasca University Research Ethics Board
University Research Services, Research Centre
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.213.203

Appendix B: Saskatchewan Bulletin Advertisement

Seeking Participants for K-12 Distance Education in Saskatchewan Research Study

The study (K-12 Saskatchewan Distance Education: Digging Deeper Into 21st Century Classrooms During a Pandemic) will involve:

- *An email interview to complete at your convenience*
- *Data will be used to develop a framework for K-12 distance education in Saskatchewan*
- *A $20 e-gift card will be provided for your time*

**The study requires all participants to be public school educators in the province of Saskatchewan.*

Please contact Kelsey Shields, principal researcher, if you are interested. (kshields1@athabasca.edu)

McDowell FOUNDATION

Athabasca University

Appendix C: Recruitment Letter

Participants Needed for Research

in K-12 Distance Education

As a recipient of the McDowell Foundation Research Grant I am looking for volunteers to take part in a study of K-12 Saskatchewan distance education during the COVID-19 pandemic.

As a participant of this study, you would be asked to participate in an email interview of 10 questions. Email interviews are flexible and can be completed on your own time. An e-gift certificate will be provided as a thank you for your time to those that complete the full interview.

Your participation is **entirely voluntary** and would take approximately 1-2 hours of your time to complete. By participating in this study, you will help us to give teachers a voice during your distance learning journey during the pandemic.

To learn more about this study, or to participate in this study, please contact:

Principal Investigator:

Kelsey Shields, EDD student, Athabasca University

kshields1@athabasca.edu

This study is supervised by: Dr. Connie Blomgren

McDowell FOUNDATION

Athabasca University

Appendix D: Letter of Information

K-12 Saskatchewan Distance Education: Digging Deeper Into 21st Century Classrooms

(Date)

Principal Researcher:

Kelsey Shields

kshields1@athabasca.edu

Supervisor:

Dr. Connie Blomgren

connieb@athabascau.ca

Welcome!

You are invited to take part in a research project entitled *K-12 Saskatchewan Distance Education: Digging Deeper Into 21st Century Classrooms During a Pandemic.*

As a researcher in the field of K-12 distance education, I am curious to know more about your perceptions and experiences in the field of K-12 distance education in Saskatchewan during COVID-19. By perceptions and experiences, I am referring to your thoughts, your first-hand experiences, your lack of experience, and/or your professional thoughts and opinions on K-12 distance education in Saskatchewan during this time.

This form is part of the process of informed consent. The information presented to you within should give you the basic idea of what the research is about and your involvement as a participant, should you choose to participate. You have the right to not participate or to withdraw from the research without any negative consequences. The choice to participate is totally up to you. Take time to read this information carefully as it is important for you to understand about the benefits, risks, and what informed consent means. Please contact Kelsey Shields, the primary researcher, if you have any questions prior to consenting to participate.

Introduction

My name is Kelsey Shields and I am a Doctorate of Education in Distance Education student at Athabasca University. I am conducting a research project about the current state of K-12 distance education in Saskatchewan. I am conducting this research under the guidance of my supervisor, Dr. Connie Blomgren.

Why are you being invited to take part in this research?

You are being invited to take part in this research because you are a K-12 teacher in public education in Saskatchewan.

What is the purpose of this research project?

K-12 education has traditionally been a face-to-face experience in Saskatchewan. With the many challenges faced in public education today, we are being forced to become innovative in delivery methods of education. COVID-19 has forced K-12 teachers in Saskatchewan into providing supplemental learning to students. The purpose of this research is to explore the current state of

K-12 distance education in Saskatchewan and contribute toward developing a framework to help guide the future of distance education in the province.

What will you be asked to do?

As part of this research, you will be asked to participate in an email interview of which you can complete at a time convenient to you. A set of questions will be emailed to you, at which point, you may receive questions to clarify no more than 1 time after you have submitted your initial response. You may write as little or as much as you like. I hope to hear back from you within 1 week of the delivery of the first set of questions, although I have some flexibility. In this way, the interview may take up to 3 weeks, although this could go faster if you like.

What will you receive for participation?

In recognition of your time spent participating in this research, you will receive a $20 e-gift card to Chapters after the completion of the email interview.

What are the risks and benefits?

It is anticipated that participation in this research has minimal risks. The main benefit of participating in this research is your added contribution to the development of K-12 distance education in Saskatchewan.

Can I choose to withdraw from the project?

As stated earlier, you can withdraw from the research as it is voluntary in nature. The email interview will be considered complete after the second email correspondence. You can withdraw at any time prior to the completion of the second email correspondence. Once the second email correspondence has been submitted, the interview will be considered final. If you decide to withdraw from the research at any point prior to the second email correspondence, there will be no negative consequences. All information collected up to that point will be destroyed immediately.

How will your confidentiality be protected?

The ethical duty of confidentiality includes my obligation to protect participant information from disclosure, modification, unauthorized access, and use. Your identity as a participant will be held in strict confidentiality. Your name and affiliation will be withheld from the final dissertation to ensure anonymity.

How will the data collected be stored?

All data gathered will be stored in a password protected external hard drive. Following the completion of the study, data will be destroyed, and the hard drive returned to its factory settings. Kelsey Shields, the researcher, will be the only person with access to the stored information.

If you are interested in participating in this research please complete the attached consent form and return it to kshields1@athabascau.ca.

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any questions or concerns about your treatment as a participant in this study, please contact the Research Ethics Officer at 780.213.2033 or via email to rebsec@athabascau.ca

Kind regards,

Kelsey Shields

Appendix E: Informed Consent

(Date)

Principal Researcher:

Kelsey Shields

kshields1@athabasca.edu

Supervisor:

Dr. Connie Blomgren

connieb@athabascau.ca

You are invited to take part in a research project entitled *K-12 Saskatchewan Distance Education: Digging Deeper Into 21st Century Classrooms During a Pandemic.* I am conducting this research as part of my requirement of completion of the Doctoral of Education in Distance Education at Athabasca University.

As a participant, you were asked to review the Letter of Information previously shared with you outlining the details and expectations of the research.

Confidentiality and anonymity are key measures to ensure the protection of private information. I will ensure confidentiality and anonymity by scrubbing all personal information from the data at the completion of email exchanges.

If you have further questions, concerns, or comments please do not hesitate to contact Kelsey Shields or Dr. Connie Blomgren at the provided email addresses.

Thank you for your assistance in this research!

Consent:

I have read the Letter of Information regarding this research and all my questions have been answered to my satisfaction. I will keep a copy of this letter for my records.

My signature below confirms that:

- I understand the expectations and requirements of participating in this research;
- I understand the elements of confidentiality and anonymity in regards to this research;
- I understand that my participation is voluntary and that I can withdraw from participating in this research up to the researcher's receipt of the second email interview email;
- I understand that I can contact the researcher at any time if I have any questions or concerns about research procedures.

Name:_____ Date:_____

Digital Signature:

X _____

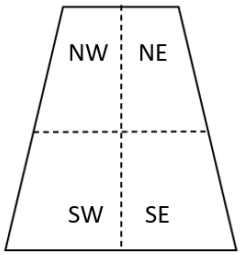
By initializing the statement(s) below,

_____ I acknowledge that the researcher may use specific quotations of mine without the use of direct identification of me

_____ I would like to receive a copy of the results of this research by email

Appendix F: Email Interview Questions

Indicate the area of Saskatchewan where you live/lived while teaching during the COVID-19 pandemic. _____



How many years of teaching experience do you have?

What grade levels did you teach through distance education/remote learning during the COVID-19 pandemic? Please indicate if you are an Administrator and/or Student Support Teacher if applicable.

Part 1: Learner

1.1 During the COVID-19 pandemic, describe students' overall willingness to learn.

1.2 In your opinion, do all learners (ex. rural, Indigenous, special needs, etc) in Saskatchewan have equal access to learning through distance education? Please explain.

Part 2: Digital Pedagogy

2.1 What unique skills do teachers in distance education/remote learning require to be successful? Please explain.

2.2 Describe the barriers to the development of online learning materials during the COVID-19 pandemic.

Part 3: Effective Evaluation

3.1 From the point of view of a teacher, what positive student assessment experiences develop in a distance education environment?

3.2 From the point of view of a teacher, what negative student assessment experiences develop in a distance education environment?

Part 4: Administrative Leadership

4.1 Describe any teacher evaluation or supervision practices you experienced during distance education/remote learning?

4.2 In your opinion, do school divisions collaborate with each other to provide opportunities for distance education? Please describe.

Part 5: Professional Development and Foundations

5.1 Describe opportunities, if any, you have been given for distance education internships or student teaching in a distance education environment, as well as professional development opportunities for distance education.

5.2 Are you confident to teach in an online environment? Describe your feelings.

Part 6: Comments

Please feel free to add any comments on your experience as a teacher in Saskatchewan during the COVID-19 pandemic.

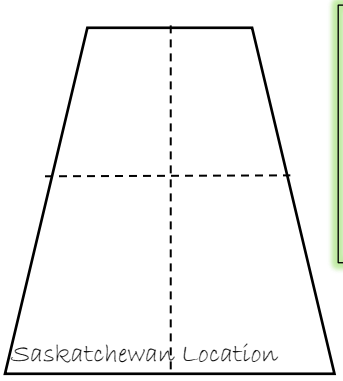
Thank you for your time and commitment to students in Saskatchewan!

Appendix G: Field Notes

Email Interview Field Notes

K-12 Saskatchewan Distance Education: Digging Deeper Into 21st Century Classrooms During a Pandemic

Researcher: Kelsey Shields Participant: _____ Date/Time: _____



Grade Range

K-3

4-6

7-9

10-12

Teaching Experience

Participants/Setting

Interview

- Interaction
- Depth of Response
- Value of Question
- Tentative Thoughts on Codes & Category

Personal Reflection

- Overall Thoughts
- Potential Biases
- Reflection on the Interview
- Thoughts on Interview Questions
- Tentative Codes

Appendix H: Sample Field Notes

Email Interview Field Notes

K-12 Saskatchewan Distance Education: Digging Deeper into 21st Century Classrooms During a Pandemic

Researcher: Kelsey Shields Participant: 9 Date/Time: 3/20/21 7:30pm

Saskatchewan Location

Grade Range: K-3, SST (4-6), (7-9), (10-12)

Teaching Experience: 5

Participants/Setting

- "interns & pre-interns were automatically passed" → How is this going to affect their confidence in starting their career?
- provided very thorough responses
- 2.1 - Refers to teaching abilities in reference to unique skills required. Can you provide specific skills you feel are needed to teach online?
- 3.2 - You reference accessing materials. Can you clarify what you are referring to? Is it teacher access or student? or both?
- 5.1 Were the book studies you participated in mandatory or a personal choice?

Interview

- Interaction
- Depth of Response
- Value of Question
- Tentative Thoughts on Codes & Category

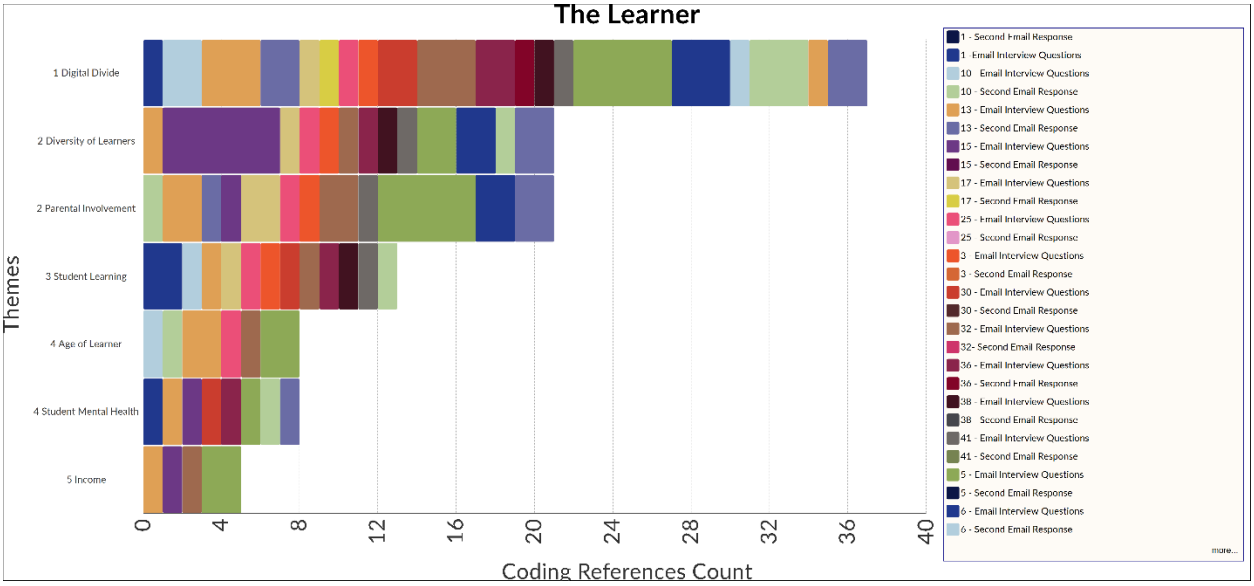
- participant was very emotional in responses
  - used capital letters
  - used adamant language
    - Absolutely not!
    - HELL NO
- Digital Divide
- Rural Barriers
- Reflects on the trauma education has experienced. Many of the descriptors created a strong visual for me. The emotion was evident.

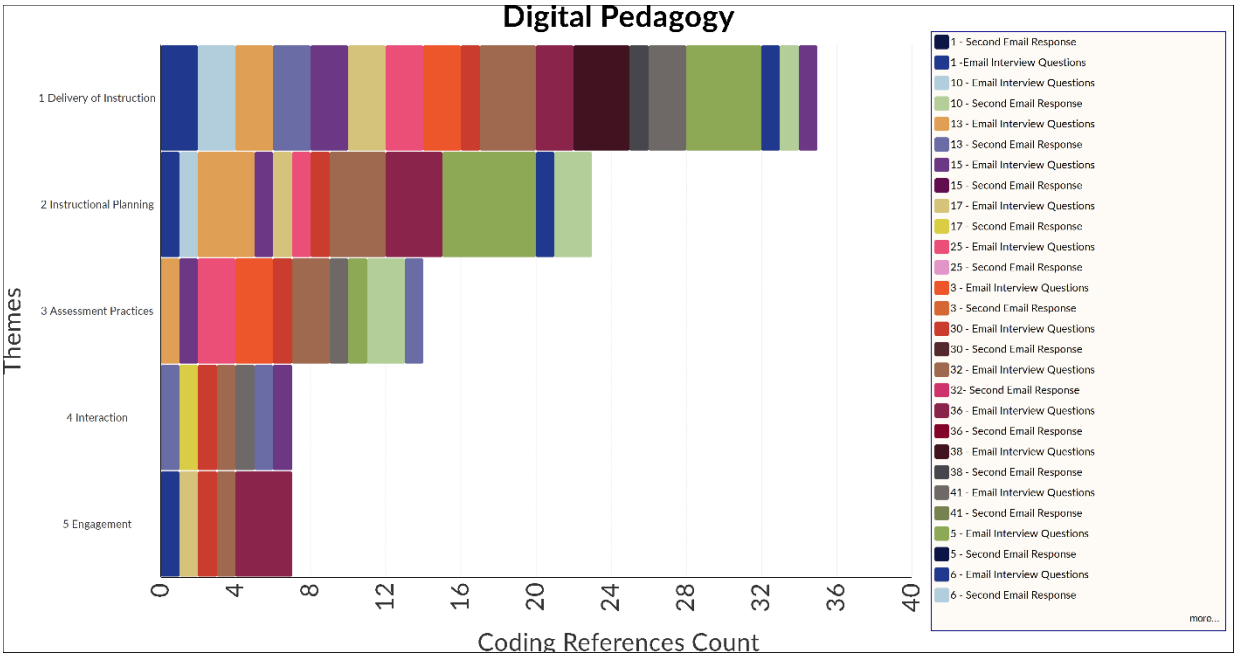
Personal Reflection

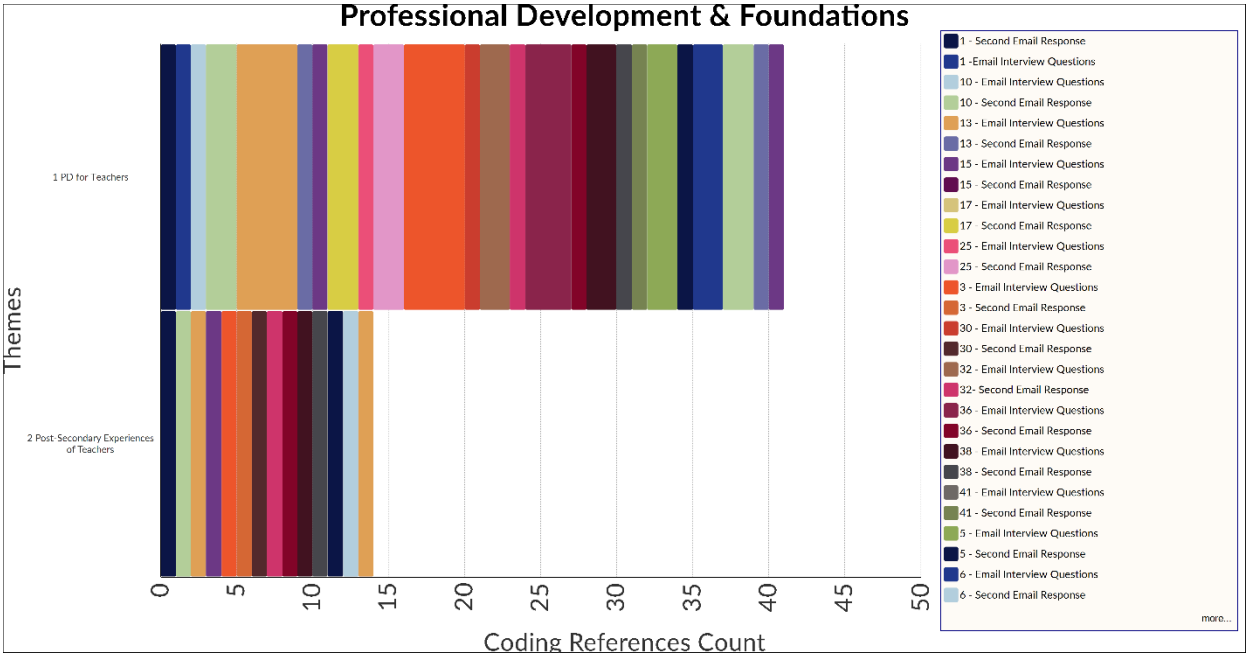
- Overall Thoughts
- Potential Biases
- Reflection on the Interview
- Thoughts on Interview Questions
- Tentative Codes

- Overall, described a negative experience
- Read over a number of times, very thorough
- I could personally feel this participants' frustration with the experience.

Appendix I: FFA Coding Reference Count Charts






Professional Development & Foundations
Themes
1 PD for Teachers
2 Post-Secondary Experiences of Teachers
0
5
10
15
20
25
30
35
40
45
50
Coding References Count
1 - Second Email Response
1 -Email Interview Questions
10 - Email Interview Questions
10 - Second Email Response
13 - Email Interview Questions
13 - Second Email Response
15 - Email Interview Questions
15 - Second Email Response
17 - Email Interview Questions
17 - Second Email Response
25 - Email Interview Questions
25 - Second Email Response
3 - Email Interview Questions
3 - Second Email Response
30 - Email Interview Questions
30 - Second Email Response
32 - Email Interview Questions
32- Second Email Response
36 - Email Interview Questions
36 - Second Email Response
38 - Email Interview Questions
38 - Second Email Response
41 - Email Interview Questions
41 - Second Email Response
5 - Email Interview Questions
5 - Second Email Response
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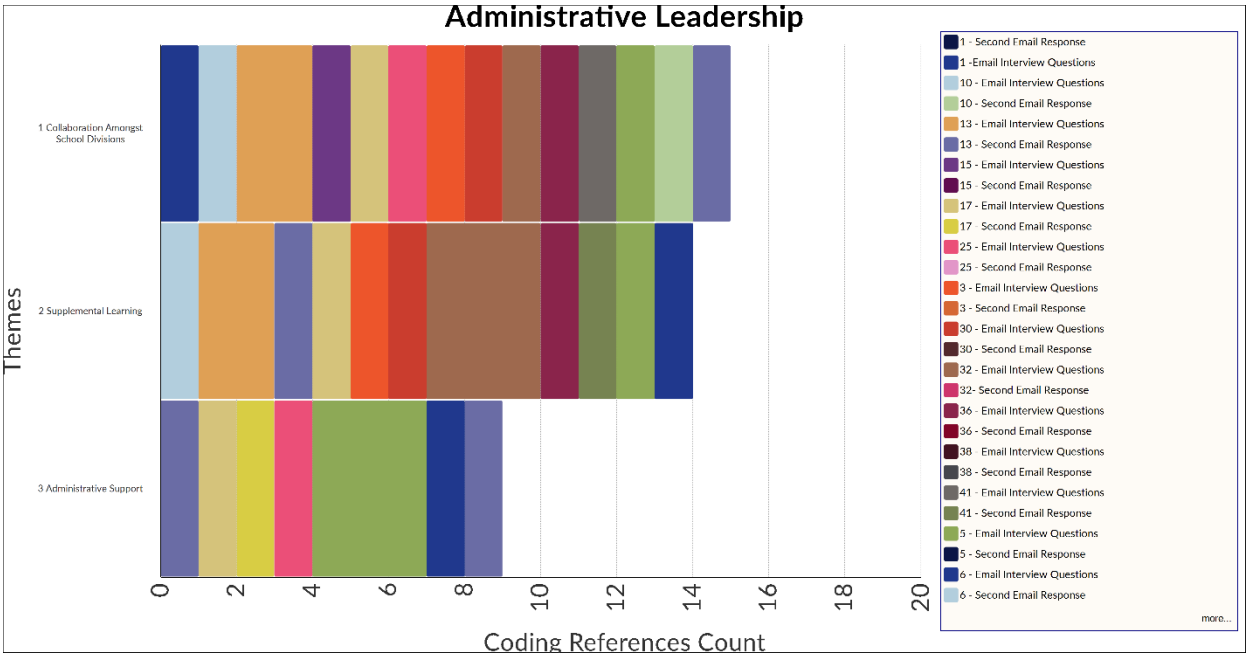
6 - Second Email Response
more...


Administrative Leadership
Themes
1 Collaboration Amongst School Divisions
2 Supplemental Learning
3 Administrative Support
0
2
4
6
8
10
12
14
16
18
20
Coding References Count
1 - Second Email Response
1 -Email Interview Questions
10 - Email Interview Questions
10 - Second Email Response
13 - Email Interview Questions
13 - Second Email Response
15 - Email Interview Questions
15 - Second Email Response
17 - Email Interview Questions
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3 - Email Interview Questions
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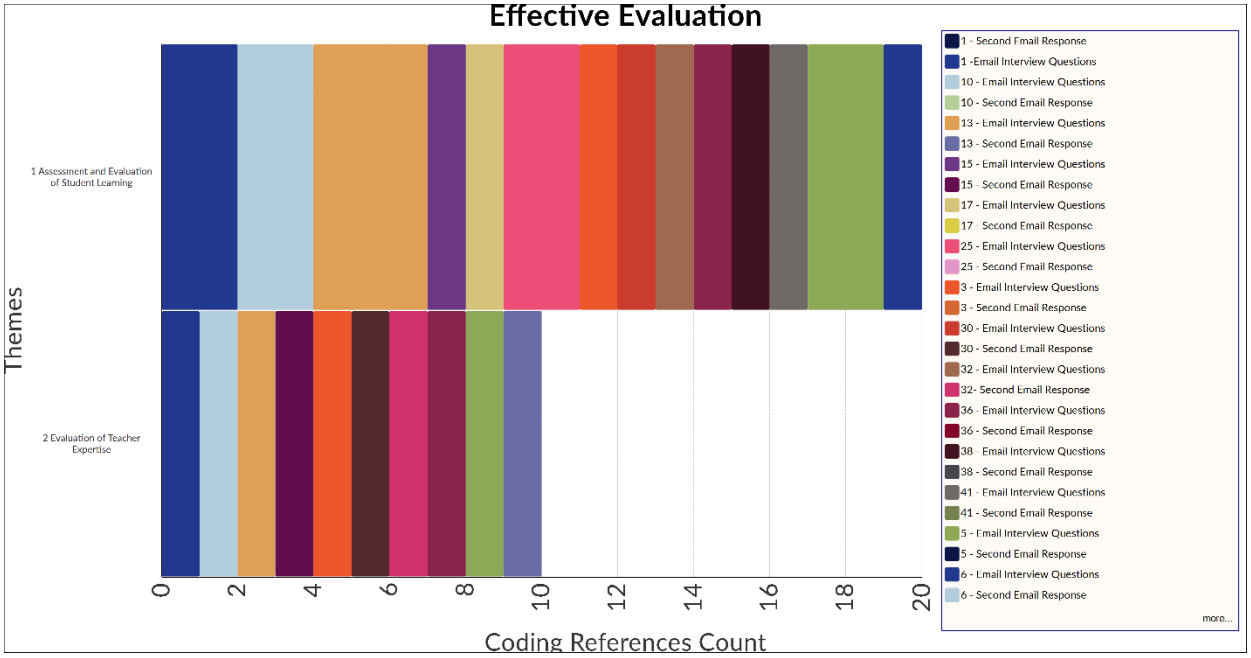
Effective Evaluation
Themes
1 Assessment and Evaluation of Student Learning
2 Evaluation of Teacher Expertise
0
2
4
6
8
10
12
14
16
18
20
Coding References Count
1 - Second Email Response
1 -Email Interview Questions
10 - Email Interview Questions
10 - Second Email Response
13 - Email Interview Questions
13 - Second Email Response
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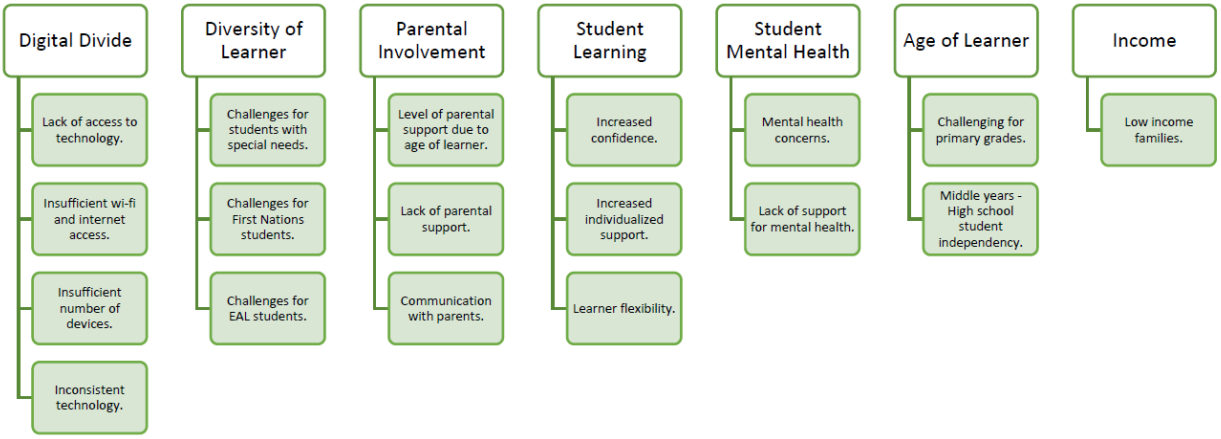
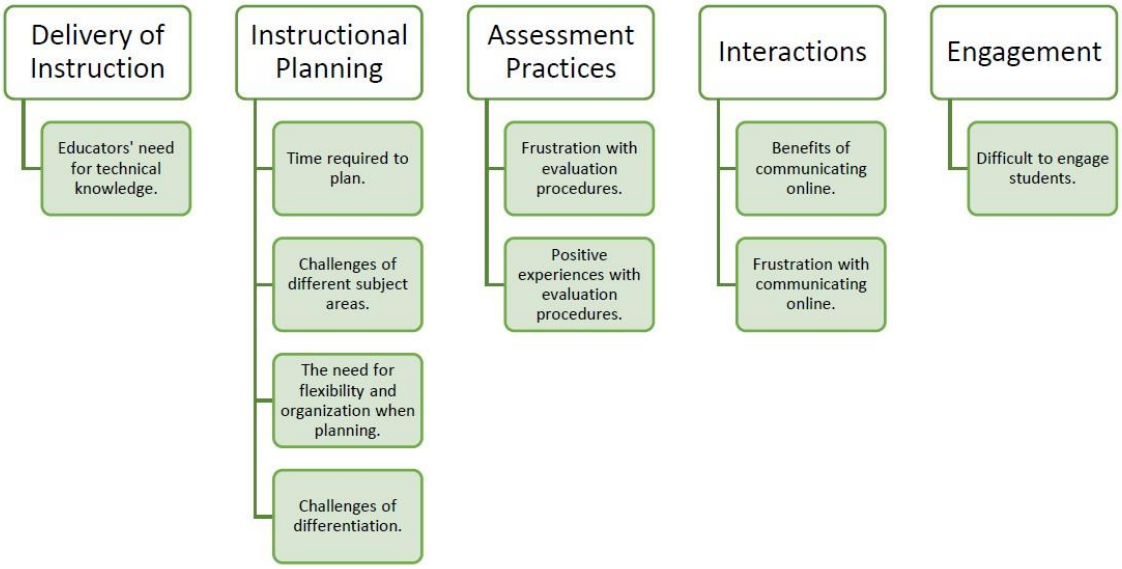
Appendix J: Conceptual Framework Sub-Themes

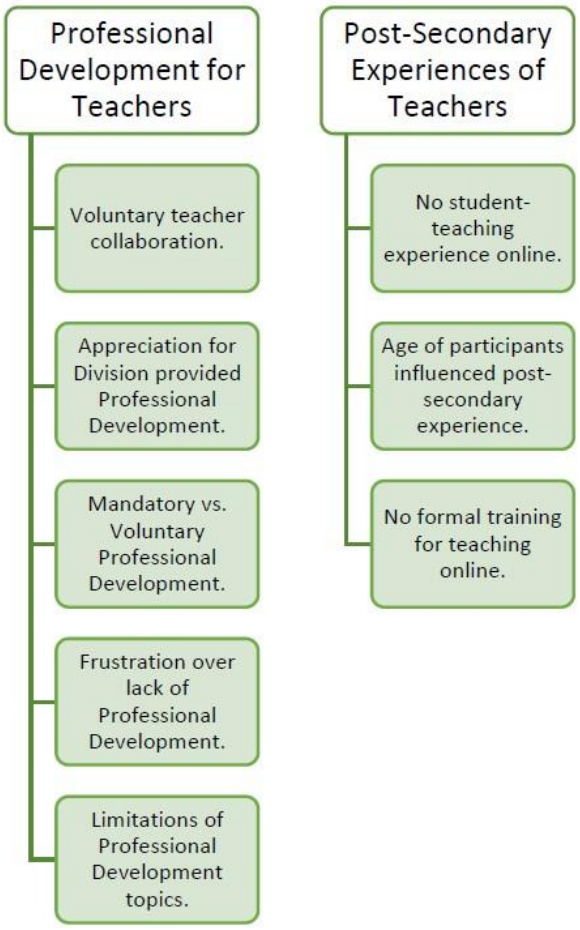
The Learner



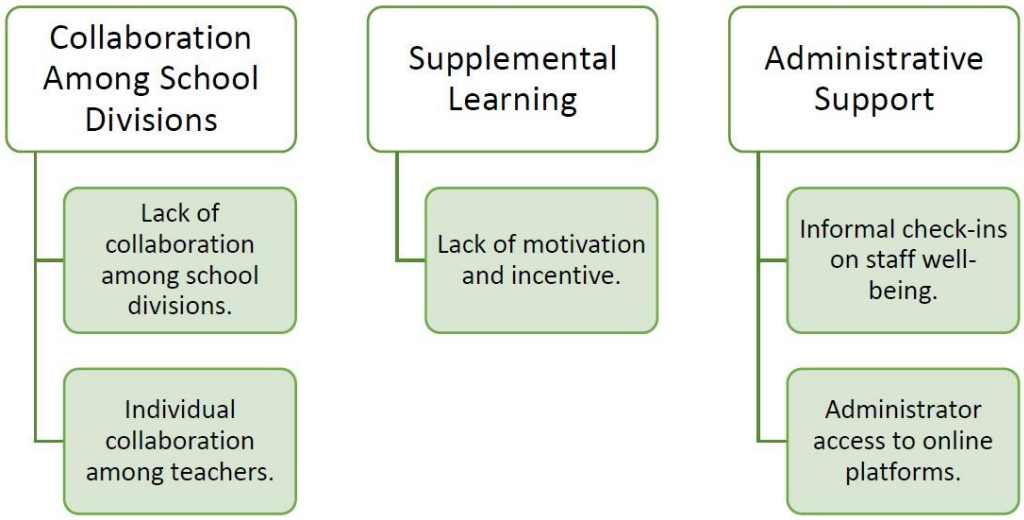
Digital Pedagogy



Professional Development & Foundations



Administrative Leadership



Effective Evaluation