CASE STUDY OF A SCHOOL-BASED AGRICULTURE PROGRAM AND ITS IMPACT ON STUDENT LEANRING AND THE SCHOOL COMMUNITY

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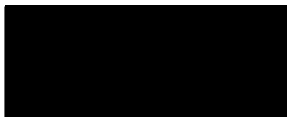
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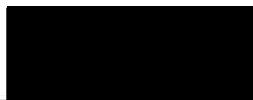# IMPACT ON STUDENT LEANRING AND THE SCHOOL COMMUNITY

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Dedication

I dedicate this work to all of my students, past, present and future. It is a great joy to walk

alongside each of you for a short time. I am fortunate and grateful to be a be part of your

journey in education.

Abstract

Rural schools in Alberta face unique challenges such as decreased funding linked to declining enrollment, obstacles in attracting and retaining teachers, and difficulty providing diverse programs (Stelmach, 2011). Despite such challenges, many rural schools have proven sustainable and resilient. Through innovative and creative responses, such as place-based pedagogy and community partnerships, there are examples of rural schools that have successfully navigated the trials inherent in rural education (Barter, 2013; Harris, 2014). This research project is a case study of a remote, rural Alberta school implementing a school-based agriculture program. Through community partnerships, New Haven Community School developed a school-based agriculture program to re-engage the community, increase student engagement and success, and develop career pathways for students.

Key Words: rural education, agriculture, community partnership, place-based pedagogy

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Thank you, Dr. Teresa Fowler, for your constant support, encouragement, reassurance, and dedication. I am fortunate to have had such a wise guide throughout my research project. Thank you to each of my instructors at Concordia. I am grateful for the care and dedication each of you invested in our cohort. Thank you to Dr. Simmee Chung for taking on the second reading of my project.

I am grateful and blessed to work, live, and play on Treaty 6 territory. I marvel each day at the beauty of creation around me. I desire to know how those who came before me and walk alongside me still cared for, understood, and related to this land.

Finally, each breath I take is by the grace of God, and I am grateful. Throughout my coursework and research journey, this has been my prayer: "Show me your ways, Lord, teach me your paths. Guide me in truth and teach me, for you are God my Saviour, and my hope is in you all day long" (Psalm 25:4-5 NIV).

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Introduction

Place-based pedagogy connects learning to the people, environment, community and culture of a particular place. Williams (2017) summarized modern iterations of place-based pedagogy stating they are, "grounded in the notion that we must use the resources, issues, and values of the local communities in our classrooms first and foremost, and that using the local community should be used as a basis for context for learning at all levels" (p. 98). Williams suggested place-base pedagogy is highly engaging and effective in improving student outcomes. The purpose of this paper is to examine the case of New Haven Community School. Located in a remote, rural community, New Haven implemented an agricultural program that embodied many characteristics of place-based pedagogy. The paper examines the particulars of the case study itself within the larger sociocultural milieu of rural education. Through semi-structured interviews the *process* through which New Haven's agriculture program emerged and its impact on the school community are explored.

School Profile – New Haven Community School

In 2014, New Haven Community School had 49 students registered and based on demographic projections, was on track to see enrolment decline to 33 students in the coming years. The K-12 school serviced a large geographic region, and amalgamation or closure would mean obscene travel times for students and families that wished to continue with public education in the division. The school burned through its fifth principal in five years, in addition to high rates of teacher turnover. Student and staff morale was at an all-time low. Student misbehaviour was common, including incidents of vandalism. Academic measures, such as provincial test results, were also in steep decline.

The response of a grade 12 student when asked how he was feeling heading into year-end exams embodied the tone of the school. The student sighed and stated, "oh, yeah, I'll fail it… that's just what we do in New Haven. We fail diplomas."

Things had not always been this way. The K-12 school had successfully navigated decades of challenges, with a reputation for encouraging the growth and development of well-rounded, hardworking, athletic, and collaborative students. In the context of a small school, it was no mystery why. Opportunities for students to lead, mentor, work collaboratively with others, work independently and develop practical organizational skills were abundant and intrinsic. Every student had the chance to participate in student government, and if you showed up to the first sports team practice, you were on the team. That's just how small schools work. But, things had slipped over the years. What had worked previously was just not cutting it anymore.

Community members' support for the school was unwavering. However, they were frustrated with the revolving door of school leaders and resulting inconsistency in expectations and results. The school served as a hub for the community. They needed a plan to move forward together. Not just for the sake of the students but the community as well. The school staff were also frustrated with the lack of student engagement and a low value on educational attainment, especially in their high school students. Connections between what the students learned in the classroom and their world outside the school were not apparent. Many of the students spoke an all too familiar phrase: "I'm just going to be a farmer. Why do I need to learn that?"

Research Context

Rural educators face an uphill battle in Alberta. With fewer young families living in rural locations, province-wide and funding calculated based on enrollment, teachers and educational leaders must work creatively to meet the needs of their students (Looker & Bollman, 2020). Issues in rural education include attracting and retaining qualified staff (Wessels & Wood, 2019); providing a variety of learning opportunities (Bradford et al., 2019); budgetary constraints related to low enrolments (Looker & Bollman, 2020); and the constant threat of closure or amalgamation (Barter 2014a). Rural students also tend to have lower educational attainment (Looker & Bollman, 2020). Additionally, rural students, families, and communities experience tension within an urban-centric educational system that often depicts rurality as a deficit (Corbett, 2014). Students and families who do not see themselves in the school, curriculum, or school system are more likely to be disengaged from the school community. This disconnect is particularly acute for Indigenous students and families (Bang et al., 2014; Stelmach, 2011). Unfortunately, without innovative and creative responses, many small rural schools are subject to closure or amalgamation, despite the adverse outcomes for rural students (Barter, 2014a).

There are, however, examples of resilient and sustainable rural schools rising to the contextual challenges. Azano and Biddle (2019), in a study of issues in rural education, implored educators to acknowledge the rurality of the students and community, celebrate the strengths, and embrace the emergent challenges present in the local context. Stelmach (2020) found place-based approaches in rural education highly effective as students and families connect to local culture, knowledge, history, nature and community. Place-based pedagogical approaches seek to integrate the locale's people,

land, and culture with student learning (Barter, 2014b). Such methods are highly engaging, positively influencing academic achievement (Donovan, 2016). Furthermore, there are clear benefits to student, staff, family, and community wellness such as improved student engagement, decreased classroom management challenges, and constructive interactions between school staff and families (Bell & Dyment, 2008).

School-based agriculture programs embody pieces of place-based pedagogy and have emerged as a potential way for some rural school communities to face emergent challenges. New Haven Community School is a case where the school community co-created an agricultural program to re-engage students and buoy the community school.

Research Aims and Objectives

My "Situation"

I have spent my career teaching in rural Alberta. At this writing, I am in my third year as the principal of a small, remote, and rural K-9 school. Many of the troubles and issues discussed in recent rural educational literature resonate with my experience in rural Alberta. As a high school science teacher for the first 12 years of my career, I struggled to make strong connections between the curricular outcomes in high school science and the experiences of rural students in their familial and community worlds (Lessard, 2015). I am a white male, born and raised in suburban Edmonton, trained in a large urban university. Being a "city-slicker" created a hidden barrier between myself and my students and their families. Rural folks had seen my type before; a beginning teacher full of enthusiasm and inexperience, swinging out to the country to gain a few years of experience and likely to either not last half a year or take off as soon as a position opened up in the city. I came hot out of the gates meticulously planning intricate lessons

reflecting much of my recent experience in my undergraduate science program. My approach focused on the program of studies which, as Stelmach (2020) observed, tends to be urban-centric and may have extended the 'rurality as deficit' narrative that many rural students and families intrinsically resisted. Despite my blind spots and inexperience with rural communities, I grew to appreciate the knowledge and experience of my students and fell in love with the tight-knit community. My colleagues and I had close relationships with each other and our students, connected through educational bonds and those found in community engagement. I began to perceive rurality as a strength. I started to put roots into the community and accrued experience and knowledge as I walked with my rural colleagues and families.

In 2019, I started a new position as a small, remote K-9 school principal. My school is located in east-central Alberta and is more than 100 km from any urban center with over 5000 people. The area is an agricultural hub with many cattle ranches, grain and mixed farms. The community is also home to professionals that work from home, often working their "day job" to continue small scale agricultural endeavours.

The school is the product of the amalgamation of one-room schoolhouses from across the region in 1950 (J. Adair, personal communication, December 6, 2020). Characterized by strong community support, the school has endured changing funding structures, high staff turnover, and threats of closure and amalgamation. And yet, the school has consistently supported student success, as indicated by above-average high school completion rates, diploma exam results and overall educational attainment of alumni.

The school is uniquely positioned, based on the strength of community, available resources and deep connections to the land, to be sustainable and resilient. In exploring possibilities for our community school, several parents from our school council and I began investigating other small, remote, rural schools experiencing success. It seemed to be a relevant and organic connection to extend my investigation into my studies in Educational Leadership.

The Case Study

The case of New Haven Community School is one of community partnerships, student engagement, and agricultural education. New Haven Community School is a case in which organic, grassroots community support for a small school merged with a supportive local government, including the county and school board. The goals of the school, school division and community harmonized, and the school leadership capitalized on the opportunity.

New Haven Community School is not a case of place-based learning focused on reconciliation, Indigenous Education and Land-Based learning rooted in Indigenous ways of knowing. Although New Haven Community School is well-positioned to begin to ask *whose* place and *whose* land is at the centre of their agricultural program, that simply was not the focus of the case. However, as I explore place-based pedagogy and its application in agricultural education there are opportunities to foster connections to other ways of knowing and understanding the land.

Research Aims and Objectives

The case itself is worthy of study. The stories of this rural school, community, students, and staff are captivating and potentially instructive. We may gain insights into

the co-creation process as schools and communities walk forward together. It is important to represent and share the stories of those who may not be central figures in current educational discourses. Just as students need to see themselves in their educational context, it is vital to represent rural education in the research literature.

Related Literature

Rurality

Rurality itself is difficult to define. Looker and Bollman (2020) analyzed Statistic Canada's 2016 Census of Population and monthly Labour Force Surveys and identified a continuum between urban and rural. Looker and Bollman suggested that "the well-documented 'challenges' facing rural communities seem to represent the issues facing those in *remote* rural areas. Those closer to urban areas seem to have experiences that often match the situation in urban areas" (p. 67). Alberta Education (2012), in their comprehensive study of promising practices in rural elementary schools, also suggested, "trying to explain rural education and the nuanced characteristics can devolve into 'you know it when you see it'" (p. 57). Researchers characterized rurality as a rich and complex context rather than a variable that is easily measured and correlated. For this study, I will consider rural as the more remote iteration, with less influence from urban centres.

Corbett (2014) also discussed the critical yet challenging task of defining rural. He explores the notion that rurality is not simply a geographic construct but also a "cultural phenomenon; it is a set of ideas and distinctions that have particular lived meanings" (p. 4). Corbett (2014) suggested the rural-urban binary is prevalent but an oversimplification. The author contended that those who minimize or ignore the

differences between rural and urban education in Canada further marginalize those with uniquely *rural* challenges.

Rural educational contexts provide unique challenges and opportunities. Challenges, compared to urban schools, from the research literature, included: (a) lower socio-economic status (Corbett, 2014), (b) lower overall educational attainment (Canadian Council on Learning, 2006; Looker & Bollman, 2020), (c) difficulty hiring and retaining qualified staff (Azano & Stewart, 2016), (d) difficulty providing a variety of learning opportunities (Bradford et al., 2019), as well as (e) budgetary constraints leading to the constant threat of school closure or amalgamation (Barter 2014a; Stelmach, 2011). Some opportunities present in rural educational contexts identified in the research literature included: (a) strong sense of community (Preston, 2012; Stelmach 2011), (b) inclusive practices (Irvine et al., 2010), (c) personal/individualized instruction (Harris, 2014), (d) access to natural environments (Preston, 2012), and (e) strong connection to place (Barter 2014b). Despite the challenges, Alberta Education (2012) found that rural teachers and school leaders focused on the opportunities and advantages gained through smaller numbers, connection to nature, and other factors unique to specific rural contexts.

Negative perceptions of rurality are also prevalent. Corbett (2014) contested that rural educators must change the paradigm from approaching rural with a deficit perspective to seeing rural "as spaces of opportunity" (p. 16). Similarly, Azano and Biddle (2019) acknowledged the importance of "flip(ing) the conventional narrative of loss, deficit, and anti-modernity" (p. 6) often associated with rurality. However, as rural educators pursue continual improvement, some members in rural communities may perceive these actions as an admission of the deficient nature of the context. This tension

highlights the enmity between rural communities and educational institutions with urban-centric curricula and teacher training programs (Azano & Stewart, 2016). Furthermore, higher educational attainment is associated with increased out-migration (Azano & Biddle, 2019; Corbett, 2014; Stelmach, 2011). The phenomenon, known as "learning to leave," also can divide school and community (Corbett, 2000, p. 7). According to Stelmach (2020), this fracture is experienced more deeply by Indigenous families.

Community

Given the complexity of the rural context, teachers and educational leaders must move forward thoughtfully considering the unique strengths and challenges of each school community. Throughout the research literature, rural scholars repeat the chorus, "connect learning to place!" Acknowledge the rurality of the students and community, celebrate the strengths and embrace the emergent challenges (Azano & Biddle, 2019; Corbett 2014). Students and their families begin to relate deeply to the school when they co-create connections to local culture, knowledge, history, nature and community (Stelmach, 2020). The comprehensive study of rural elementary schools completed by Alberta Education (2012) similarly concluded, "perhaps a question that could be explored is how rural environment and culture can be better integrated into the curriculum" (p. 62). Stelmach (2020) further asserted students, families, and communities begin to connect authentically with their education when invited to co-create links to local culture, knowledge, history, nature and community. School councils, Stelmach (2020) contended, are underutilized in this work.

Barter (2014b) argued the forces of globalization are moving powerfully in education, creating homogenous, urban-centric systems, thus marginalizing rural

communities, especially Indigenous peoples. Barter (2014b) synthesized several key ideas from a participatory action research project. The project took place in a small rural K-12 school in Newfoundland's Change Islands. Students, teachers, parents and community members engaged in different activities to draw out local knowledge and skills related to life on the Change Islands. In Barter's (2014b) place-based approach, she acknowledged "that there is ample space within the provincial school curriculum… to teach local knowledge" (p. 15). Barter (2014b) contended, "formal education tends to have devastating effects on the transmission of Indigenous knowledge. It separates children from the environment in which they traditionally learn" (p. 17). Barter (2014b) further asserted,

> Despite whatever competencies rural children might have, the skills required of formal education are so dominant, any other forms of knowledge are implicitly devalued and demonstrate what children in rural communities do not know, rather than what they do know. Hence. They learn not to talk about that which they know. (p. 17)

Although Barter (2014b) identified some key challenges faced in rural education, such as urban-centric curriculum, the author contended connections to place are both viable and impactful within pedagogical approaches.

Place-Based Pedagogy

Azano and Stewart (2016) identified in their study on preservice teacher preparation programs, rural students are often taught by teachers with little experience with rural practices, knowledge, and culture, creating a disconnect between rural students

and their teachers. Azano and Stewart (2016) suggested that decontextualized learning is ineffective in any situation and particularly disenfranchising for rural students. The authors recommended investing time, energy, and resources in place-based pedagogy as it "ties the realities of place and students' lives to meaningful instruction" (Azano & Stewart, 2016, p. 110). Similarly, Schulte (2018) argued teacher awareness of place and development of place-based curriculum benefits learners in any context (rural or urban). It is therefore worthy of inclusion in all teacher preparation programs.

Azano and Biddle (2019) cautioned against the use of place as "an instructional trick to gauge interest," but as "a critical and socially forward interpretation [that] allows students to understand how place influences the construction of knowledge" (p. 9). Place-based pedagogy nurtures authentic connections between students' knowledge and classroom instruction with the local environment, history, culture and people. Critically, place-based pedagogy's foundations are relationships and community partnerships. Indigenous scholars, such as Marie Battiste, supported this notion of engaging community partners in creating local, place-based connections in education. Battiste (2017) stated, "all peoples have knowledge, but the group that controls the meanings and diffusion of knowledge exercises power and privilege over other groups" (p. 96). Additionally, Corbett (2014) discussed the intersection of rurality and race experienced by First Nations, Métis and Inuit people in Canada.

Place-based pedagogical approaches are not without challenges. Without appropriate consultation and opportunity for self-determination, place-based approaches risk sustaining hegemonic curriculum and educational practices (Battiste, 2017). Furthermore, local conceptions of place may perpetuate hegemonic practices in areas

where local Indigenous perspectives are not acknowledged. As Bang et al. (2014) observed, "the challenge for place conscious educators is to create learning environments for new generations of young people that do not facilitate and cultivate conceptual developments and experiences of land that are aligned with 'discover(y)/(ing)' frameworks which elevate settlers' rationales for their right to land" (p. 42). Greenwood (2017) contended the challenge must be addressed in community, with a spirit of unity, "somehow we must learn to sew together a vision of the world that has room for both immigrant and Indigenous realities, where all of us can see our way toward being naturalized to the extent that we are able to belong to the places where we, and others, find ourselves" (p. 212). Greenwood (2017) also pointed out the modern reality of mobility and a lack of geographic roots and stated, "it is increasingly difficult for many people to say exactly where they are from" (p. 211). Rural students and families may not have deep roots in the local land, community, and culture. Furthermore, as Wessels and Wood (2019) identified, teachers disconnected from their locale are ill-prepared to implement place-based learning.

Azano and Biddle (2019) identified several other challenges with place-based pedagogy. For example, critics contend place-based pedagogy is impractical in high school or specialized subject areas, creates a hyper-focus on the local to the neglect of the global; and is far too complex to implement systematically (Azano & Biddle, 2019). Finally, with limited resources, rural schools and school divisions may lack the ability to implement place-based pedagogy effectively. Donovan (2016) stated, "teachers simply don't have the time or the freedom to find real success [implementing place-based

learning] and default to teaching the prescribed curriculum" (p. 3). It is, therefore, of critical importance to engage community partnerships that go beyond nominal support.

Research Designs

Methodology

Qualitative research explores a central idea or problem and captures participants' experiences (Creswell, 2015). Additionally, a qualitative case study offers a framework that acknowledges larger contextual features, such as historical background, physical setting, social, political, economic climates as experienced locally. My interest in rural education, both the challenges and opportunities, seemed to be embodied in the particular "troubles" and broader "issues" within the New Haven Community School [pseudonym] case (Mills, 1959, p. 8).

My case study of New Haven Community School is an "intrinsic case study," as the research project was initiated due to my interest in the case itself (Stake, 2003, p. 136). Furthermore, it is essential to acknowledge my positionality as I chose this case based on my hopes and desires for rural education. I pursued the New Haven Community School case because they have prioritized integrating hands-on agricultural experiences into their daily program. The school community prioritized working together to create connections between the land, curriculum, and students. In sum, New Haven Community School agriculture program is a case of place-based pedagogy.

Binding the Case

Stake (2003) outlined the responsibility of the qualitative researcher to bind the case, that is, to "conceptualize the object of study" (p. 155). In order to bind the case, Stake (2003) considered several tenets including: nature of the case, the case's historical

background, the physical setting, other contexts (i.e. economic and social), other comparable cases, and participants "through whom the case can be known" (p. 140). New Haven Community School's agriculture program is the focus of the case study. The program emerged through community partnerships and a collective will to oppose deficit narratives in rural education, such as those related to high dropout rates and low levels of educational attainment. Because the program was co-created with community members, connections to the *place* occurred organically, this process emerged as a key focus within the case. New Haven Community School successfully navigated previous decades and the challenges associated with rural education but seemed to be in a downward spiral embodied by dropping enrolment, difficulty attracting and retaining staff, and disappointing academic results such as diploma exam scores. The case study included the end of the 2014 school year to present day. New Haven Community School is a remote, rural school and reflected many of the "issues" and "troubles" (Mills, 1959, p. 8) of rural education, such as difficulty providing a variety of learning experiences for students, and in the stories shared by the participants.

Research Methods

Prior to engaging in data collection and analysis, I completed a research ethics application and gained approval to proceed. I requested permission from New Haven Community School to participate in my research study. I carefully considered the potential impact on "individuals, populations being studied, and research sites" (Creswell, 2015, p. 234). Permissions included consent from all relevant parties for semi-structured interviews, including digital recording and transcription; and on-site observations.

As I engaged my participants in New Haven Community School, it was critical to understand the nuance and "feel" of the school community, to uncover the challenges and opportunities in the lifework at the school. To more fully understand the case and its binding, I employed three methods of data collection: document analysis, semi-structured interviews and observations. A key benefit of examining multiple data sources is the validation of important themes or ideas, often referred to as "triangulation" (Parsons et al., 2013, p. 63). Document analysis served as an indirect, unobtrusive, and inexpensive means of finding "significant information embedded in what the organization you are studying has created" (Parsons et al., 2013, p. 60). Furthermore, Creswell (2015) asserted, "[documents] provide the advantage of being in the language and words of the participants, who have usually given thoughtful attention to them" (p. 223). I analyzed materials produced by the participant school related to their innovative programming, publically available online. Through my analysis, I attempted to understand the meaning of the words/symbols/images, especially related to the rural school's strengths and positionality. I took extensive notes considering the intended purpose and key features of the documents, with the desire to understand what was most important to the document's author. From this analysis, I developed a school profile. The school profile included a narrative description of the school and other data such as geographic location, distance from urban centres, student population, staff membership and demographic data (Parsons et al., 2013).

Next, I conducted three semi-structured interviews. I arranged permissions before the interviews, including a commitment to protect participants' identities and information. Participation was strictly voluntary, participants were free to withdraw

consent and discontinue participation at any time and refuse to answer any question that I asked. I interviewed the principal, Reggie Black [pseudonym], the vice-principal, Alison Lang [pseudonym], and the Educational Assistant in charge of the barn, Vanessa Lee [pseudonym]. I recorded and transcribed each interview. Creswell (2015) and Parsons et al. (2013) cautioned against asking too many questions and instead suggested asking open-ended questions that allow the participant to share freely. Open-ended questions serve to both allow the participant to fully express their perceptions and ideas as well as reduce the influence of "interviewer bias" (Parsons et al., p. 56). In addition to the questions included in the interview protocol (Appendix B), I prepared follow-up questions or probes that invited further conversation. To ensure the accuracy of recordings and transcriptions, I member-checked each transcript.

Finally, after conducting the semi-structured interviews, Mr. Reggie Black gave me a tour of the school and school grounds. I carefully recorded jot notes as we walked together, revisiting my observations as another data source in my analysis. Additionally, after the site visit, I spent time writing reflections with particular attention towards separating my observations from my inferences and judgements (Parsons et al., 2013).

As I interrogate my biases and reflect on my own experience, hopes and dreams for the school in which I currently serve, I found myself captivated by the *process* by which the agriculture program emerged and role of community partnerships within that process. It was obvious that agricultural education was highly engaging for "farm kids." But, what was intriguing to me was the participant's description of the role of community mentors and partnerships in transforming the culture of New Haven School from a "we're just trying to survive," deficit perspective, to a culture in which students saw themselves

in their education and recognized their knowledge, experience and place. Therefore, as part of my semi-structured interviews, I asked questions related to community engagement and place-based learning and sought to understand participants' stories, inclusive of both successes and challenges.

Participants

The participants in the semi-structured interviews included Mr. Reggie Black, the Principal, Mrs. Alison Lang, the Vice Principal, Mrs. Vanessa Lee, the Educational Assistant in charge of the daily operations of the agriculture program. Reggie is the longest tenured participant, hired in 2014 after extensive advertising and recruiting work by the school, school board, and county. Prior to taking on the principal position at New Haven Community School, Reggie did not have experience in rural education. Reggie and his wife have five children and the family has grown to love rural life. Alison grew up in a rural community, gained teaching experience across the world to begin her career, and has since returned to rural Alberta. Alison came to New Haven School in the fall of 2021 to cover a long term leave of absence. Vanessa, a mother of three, rancher and newly hired Educational Assistant in charge of the daily operations of the agriculture program, lives near New Haven. Vanessa's position, new in the fall of 2021, became necessary as the amount of time and energy needed to continue the agriculture program increased. The participants are passionate about rural education and see the rurality of the school, students and community as a strength. Each participant shared enthusiastically about their own journey in education and the transformation New Haven Community School experienced through the implementation of their agriculture program.

Guided by Narrative Inquiry

Narrative inquiry provides insight into of the lived experience of an individual or group (Clandinin & Connelly, 1992). At the outset of the case study I had no intention of implementing narrative inquiry into my research. However, as I transcribed each interview, read and listened to the interviews repeatedly, it became clear that the field text in my hands enabled me to "move between intimacy with field participants and a reflective stance" (Clandinin & Connelly, 1992, p. 95). As I looked within and considered my own circumstances in rural education I was able to relate to experiences of my participants and draw insights from their narratives. As a means to explore the case, I engaged in personal reflection on the narratives that had emerged through the research interviews. As I moved through the data the intrinsic case study became more meaningful as a narrative (Sonday et al., 2020). Although not a complete narrative inquiry, my situation helped frame the research, and I worked to attend to the storied experiences of the participants. Therefore, my project was *guided* in part by narrative inquiry.

Coding the Interview Data

I manually coded the interview data following the practical steps suggested by Medelyan (2020). First, it seemed logical to use inductive coding techniques, sifting through the transcripts and allowing themes to emerge from the data itself. As I read each transcript, I created a list of codes that stood out to me. I chose to assign a highlighter colour to each code. I then reread each transcript and highlighted text that seemed to match the codes that I created. I noted new codes and added them to my initial set in this process. I also uncovered sub-themes. For example, an emerging idea seemed to be community partnerships, but it was clear there were sub-categories related to individual,

community, school board, and business partnerships on the second reading. Finally, I reread the transcripts and again assigned and modified codes as required by highlighting keywords and phrases with the corresponding colour. I collated the data into Appendix E, which includes a summary of the first order codes, second-order codes, direct quotations, paraphrases and summaries from the transcripts. I also attributed each quote, paraphrase or summary to the specific interviewee within the summary table.

Data Analysis

Through intrinsic research designs, several themes emerged as I analyzed the research data (Stake, 2003). New Haven Community School's story is one of a *process* of engaging community partners in agricultural education and reigniting pride and passion for this small K-12 school. I examined the case through the narratives shared in semi-structured interviews by three staff members in addition to document analysis and on-site observation.

I represented the data from the semi-structured interviews using a key visual, a "hierarchical tree diagram" (Creswell, 2015, p. 255), incorporating both narrative descriptions, bound in the research interview transcripts and my personal reflections, as shown in Figure 1. The tree diagram, with layered themes, provided an overview of key ideas from the research data and proved useful in discerning possible themes.

The participants' narrative descriptions conveyed the broader context and themes, expressed relevant details and highlighted the unique strengths and challenges of the participant school. As Creswell (2015) asserted, "because [qualitative researchers] may have been to the field and visited personally at great length with individuals, … are in

good position to reflect and remark on the larger meaning of the data" (p. 259). I carefully considered each participant's perspective through the data review process, school profile, creation of visual representation of the interview data, observations, and personal reflections. I sought to triangulate key themes or ideas summarized in Figure 1.

Community engagement through opportunities for input and participation emerged as keys to successful implementation of New Haven Community School's agriculture program. Each participant identified examples of community involvement that were central to the program. Additionally, the school staff valued the agricultural expertise, knowledge and experience of the community members which fostered strong school/community relations. By connecting classroom content with hands-on agricultural projects the participants perceived improvement in student learning and engagement. The collaborative nature of the agriculture program seemed to buoy the morale of the students, staff, and community. The students began to feel validated in their knowledge and interests. High school students interested in agriculture had opportunities to see potential career pathways through partnerships with local colleges and agricultural associations. The staff felt encouraged by the practical help of community members, while the community members enjoyed contributing to the work of supporting both their students and school. The participants perceived their efforts in implementing the agriculture program as an investment in the community with eyes towards sustainability for the town of New Haven as well as the school.

Figure 1

Hierarchical Tree Diagram – Data Analysis Summary

Layer 4   Key Learnings/Broad Emergent Themes

- **Rural Revitalization and Sustainability**
- **Student Learning & Engagement**

Layer 3   Key Themes Identified from the Data

- **Community Input, Mentorship**
- **Career Pathways**
- **Student Learning & Engagement**
- **Agriculture**
- **School/Community Sustainability**

Layer 2   Narrative Descriptions and Personal Reflections

- **Synthesis of Data**

Layer 1   Data from Analysis of Documents and Semi-Structured Interviews

- **Data**

Note: Adapted from Creswell, 2015, p. 253

Discussion

New Haven Community School's Transformation

In response to the turmoil in New Haven Community School, community

members, the school division, and the county met and discussed the issues. Together,

they agreed to hire a principal with a commitment to rural education and a willingness to

stick around for a few years. However, they realized that appropriate housing for the

incoming teacher/principal would be challenging. The parties pooled their resources and

purchased a mobile home to serve the incoming administrator. This first step proved to

the community that there was a collective will to work together. The superintendent then

started looking for principal candidates. Through connections to a local university's

Master of Education program, the superintendent hired Mr. Reggie Black. Reggie

recently worked as a vice-principal and sought to gain experience as the principal of New

Haven Community School. Although Reggie did not have a rural background, he and his

family were willing to try something different and moved to New Haven.

Upon arrival, Reggie worked closely with staff to restore stability and

expectations by striving for excellence in the basic, everyday activities in the school. "We

started off with just trying to do school well and build relationships with kids and teach

well and learn well." Reggie noticed the high school students had low expectations for

themselves both at school and beyond. Although passionate about agriculture, Reggie's

first group of graduates were unaware of the numerous career pathways related to

agriculture. From Reggie's point of view, due to their experience and familiarity in

agriculture, all of these graduates would excel in various fields and be able to forge

careers in rural Alberta, leading to a more sustainable future for their families and rural

community. The students seemed to see their high school education as, at best, a necessary hoop to jump through or, at worst, an impediment to their real lives on the farm. The connection between what they were doing at school and their interests, hopes, and dreams was simply absent. Reggie brought it up at a staff meeting, "we talked right then as a school staff that we had to do a better job of teaching [the students] the career pathways in agriculture." Although everyone agreed, the teachers had full schedules and many extracurricular responsibilities and felt rudderless as they added this somewhat nebulous task to the pile. Reggie remarked, "we kind of spun our wheels, a little bit on it, because we were doing a lot of stuff trying to fix the school as well."

Over the next three years, Reggie led New Haven School out of the mire. He developed rapport with the community as they observed his commitment to the students, school, and community. His family began putting down roots in the area and fell in love with many aspects of rural life. Staffing issues slowly resolved and the school was once again in a healthy place, ready to take a step forward as a leader in rural education.

It began with a garden. In 2017 the school received a small grant to develop a community garden. The community partnered with the school to repurpose the old skating rink behind the school, and the school incorporated aspects of the garden into their lessons and daily routines. The students loved getting outside and seeing the progress of their garden plots. The teachers enjoyed the organic connections to curricular outcomes, not to mention the time outside seemed to invigorate both students and staff. The community and school planted and harvested the garden together, forging bonds between the school staff, students' families, and community members.

Early in 2018, two staff members discussed the success of the community garden and wondered if there might be something more to explore. Buoyed by the community's enthusiasm to support the garden project, they proposed pursuing several agricultural theme days. The staff members imagined hands-on learning sessions hosted within the school on four separate days throughout the school year. Through the agriculture days, community members shared their experiences and expertise and developed even deeper connections with the staff and students at New Haven School. Experts in crop science, soils, veterinary medicine, agricultural chemicals, ranching, regenerative practices, poultry, cattle, and hogs converged on New Haven School to share their knowledge and provide some hands-on learning. These experts introduced the students to many exciting careers and opportunities in agriculture and beyond. The staff collated a list of possible career pathways in agriculture throughout the year, in the end compiling over one hundred and thirty possibilities! Reggie and his team immediately noticed students developing more passion and energy as they began to imagine more for their futures.

In the spring of 2018, Reggie's family planned to participate in the local 4H club. They decided to raise a steer. While chatting after a school council meeting, a parent member informed Reggie there might be a few students that would love to have a steer but did not have the means to participate as they lived in the town of New Haven. The parent offered to approach the local agriculture society to ask for help putting together a pen for steers at the school. The agriculture society was thrilled to help out, and the school was soon equipped with panels and equipment to take care of several steers. The students at New Haven looked forward to taking turns doing chores, and soon Reggie created a schedule to make sure each student had the opportunity. Community members

with experience and knowledge came alongside the school and supported the students in learning how to care for the animals. The students who lived in town looked forward to having their turn on the weekends to take care of the chores.

During the winter of 2019, Reggie came across an advertisement for a beautiful, ready-to-move barn. Reggie shared pictures of the barn with a few parents and asked what they thought. Enthusiastically, the parents agreed that it would be a fantastic idea and volunteered to lead a presentation to the school board. Together Reggie and the parents presented the idea to the board – the barn would foster an agriculture focus help develop career pathways for students in New Haven with the potential to host and support other schools in the division. The board unanimously approved the proposal to purchase the barn and pour a cement pad to support the structure. New Haven hosted a barn dance, BBQ, community celebration, and the live auction - featuring the school's steer. Community members purchased and re-donated, re-auctioned and re-purchased the steer nine times! The community raised over $50,000 to support agricultural programming at New Haven Community School.

The momentum heading into the fall of 2019 was palpable. The funds from the auction covered the installation of waterers and electrical in the barn, the construction of pens and shelters for large animals, and fencing around the school farm. The school council applied for and moved forward with a solar power grant, and the Canada Turkey Board approved another grant application for a "turkey room" in the barn. The students proposed ideas for agricultural projects – steers, broiler chickens, laying hens, turkeys, pigs, sheep, and even quail! Critically, each project was connected to a community mentor, who helped pass on key information, helped make essential connections within

the industry, and assisted with the day-to-day operations for each project. The school hired a full-time Educational Assistant to help manage and supervise the students' work in the barn and assist in the classrooms. Reggie redesigned the schedule into four blocks, with half of the final block each day for 'options' including student agricultural projects. The agricultural projects at New Haven fall under Alberta's Career Technology Foundations (CTF) and Career and Technology Studies (CTS) programs of study in addition to many connections to other subject areas. The school staff and the community work closely together to support student projects. The local government assisted Reggie and the school administration in accessing required permits and permissions. Partnerships with local businesses, agricultural societies, and not-for-profit organizations provided key resources to support student projects. Additionally, the school division supported the work in New Haven Community School with financial resources and encouragement to pursue creating a school-based agriculture program to meet the needs of the students in the community and the division.

Daily Life at New Haven Community School

New Haven Community School starts each day with chores and breakfast. Students take turns completing chores like feeding animals, cleaning stalls, replacing bedding, and collecting eggs. Alison Lang, the new vice-principal at New Haven this year, remarked, "I've worked my entire career, begging kids to bring a pencil to class [and wondered], how are they going to get out of bed, get the boots on, go out when it's 30 below [to do chores] but… there's a crowd of kids waiting to go to do the chores." Chores are assigned, and once completed, everyone then enjoys a hearty breakfast made possible by the provincial nutrition grant and the skills and dedication of a community

member. The students and staff look forward to the special days when they are greeted by the smell of freshly baked cinnamon buns as they enter the school.

After breakfast, the K-12 students disperse to their classes for the day. The high school students, through video conference, have access to any academic classes required for graduation in addition to many options. The high schools in the division, due to sparse populations, share expertise and rely on each other to provide instruction for each other's students. In addition to participation in farm projects through CTF and CTS, the junior high and high school students also can be involved in the agriculture program at a management level. Interested students fill positions such as general manager, hog manager, steer manager, chicken manager, and crop manager. Reggie accepts formal applications from students, then interviews each applicant, and 'hires' for each position. The process is highly inclusive. As Reggie noted, "if they applied, we get them a role. We don't want anyone excluded." Managers meet bi-weekly to discuss decisions related to finances, animal care, and problem-solving. Each manager must report on how their animals or crops are doing and any issues they are facing, with opportunities to discuss possible solutions. The general manager and assistant general manager, typically positions filled by grade 11 or 12 students, are tasked with organizing chore schedules and taking care of animals on weekends and holidays.

The elementary-aged students enjoy authentic connections between the agriculture projects unfolding in the schoolyard and their lessons in the classroom. Connections to mathematics, science, language arts and social studies elicit enthusiasm and engagement from the students. Vanessa Lee, the Educational Assistant tasked with overseeing the daily operations in the barn in addition to her role in the classroom, noted,

"a lot of kids they do flourish… you get to see a different side. Especially the kids who don't always flourish in the classroom." Alison Lang agreed and noticed particularly positive outcomes for her junior high boys. Alison shared the example of a grade nine student who constructed a pig shelter as part of a CTF project.

> We were out one day building the shelter for pigs. Just out of pallets [from] design that we found from some other person and so he's got the drill and screws and we're building the shelter up and he turned to me and the aid and he said, 'you know, I'm not good at school, but I'm good at this stuff.' And that stuck. Here's a kid that's going stick around school, whether or not he's academic and whether he's getting at or in the dash-one stream doesn't really matter because he's found something that he feels useful. And, he knows he's an important part of this operation. And that if he were to leave it would it would do damage to the community and our school. And so there's that sense of ownership in the school that we don't get in a lot of other schools.

Bumps Along the Way

New Haven Community School faced numerous hurdles as they progressed. Initially, the school janitor grew frustrated at the mess created by students coming and going from the barn. However, as she observed the joy her granddaughter, a student at New Haven, experienced as she learned in the barn, she quickly helped set up more boot racks and space to hang up coveralls. Some community members wondered why such programming was necessary and relayed to Reggie, "we didn't have that in our day, and we were just fine." However, as these members observed the connection to the land and agriculture fostered in the students, their opinions shifted. In fact, tempering the

enthusiasm of community members became a unique challenge. Reggie had different community members with competing opinions, for example, regarding feeding regimens for steers that developed into small conflicts. Reggie and his staff devised a solution: to have one point-person who volunteered to be *the* community mentor for the particular project – Reggie noted that this seemed to help keep the peace.

In the early going, some staff were hesitant or even resistant to finding connections to the agriculture program. However, the tide of positive momentum was simply too strong. Reggie commented that those who were not interested or resistant eventually left, "it became almost uncomfortable for them, to not want to take part in this huge [agriculture] program in the school, the identity of the school… they just didn't fit anymore." It wasn't that they didn't just support agricultural programs; it was emblematic of an unwillingness to meet students where they were at, to find those deeper connections with their students. As Alison remarked, "there's kids that couldn't give two hoots about the [agriculture] program… but you also have to have a high quality environment for those kids who don't really care about the [agriculture] program… so that's why I'm teaching foods [this semester], because there's four grade 10 kids that couldn't really care less about the farm… so let's find another way."

Rurality as Strength

The students at New Haven Community School are proud of their work, accomplishments and school. Reggie and the staff noticed a huge culture shift, "the cool thing is that [the students] actually say they're proud of their school, right, I actually had one kid say, 'we were kind of ashamed that we came from New Haven, but now, we're like, 'Yeah, yeah, we're from New Haven!''" Alison, reflecting on her experience

growing up in a rural community noticed the difference the school-based agriculture program had on students, "coming from a small town, the idea is that… you just count the seconds till you can leave and go to the city… because there's nothing here for you. But these kids see that [there] is a future for [them]."

Reggie, with pride, acknowledged the transformation he witnessed and suggested community connections were the catalyst to change. "I think when you tie the community to the school, you bring that mentorship component, and you bring people into the school, and they start becoming excited about the school." When community members became invested in the daily life of the school, "we change[d] the conversation around school, change[d] the culture of school and community, and suddenly people are bragging about the school." Vanessa conceded, "this doesn't work without our community… and the whole community is behind it."

Conclusion
Importance of Place

Azano and Stewart (2016) define place-based pedagogy as "educational practices seeking to tie the realities of place and students' lives to meaningful instruction, particularly for the purpose of student engagement" (p. 111). Sustainable practices at New Haven Community School included connections to the rural school's geographic location, local culture, knowledge, history, economic strengths of the community – in this case, agriculture. Incorporating such touchstones of place within innovative practices increased student and community engagement and improved student outcomes. As Stelmach (2011) suggested, "curriculum developed around a sense of place alerts

students to the importance of developing personal identities within the context of their lives and confirms their value and worth in relation to where they come from" (p. 38).

Community Partnerships

The staff of New Haven Community School relied heavily on community support. Harris (2014) asserted, "school survival requires cooperation with the wider community and its services" (p.667). New Haven was a case where the school worked closely with community members, businesses, and other local organizations. Reading et al. (2019) found "the educational effectiveness in enabling sustainability can be optimized by: taking cross-curricular approaches, addressing real problems, *forming partnerships,* [and] *making use of community capabilities* [emphasis added]" (p. 51). Community support was undoubtedly the foundation of the New Haven Community School case.

Community connections must also be mutually beneficial. Stelmach (2020) argued that current use of the term *community* in educational scholarship centres on solely "enhancing student outcomes" (p. 208), with little or no engagement with the values and goals of the wider community. This perceived exploitation creates enmity between schools and parents, characterized by distrust or unease in school-family relations. Critically, New Haven Community School staff engaged community members to *co-create* the programming relevant to both the students and the larger community. Other benefits to the community included increased population in the town and investment in infrastructure in and around the school site.

Next Steps

In discussing place-based pedagogy it is critical to engage in conversations regarding *whose place.* As is made clear in the research literature, place-based pedagogical approaches that do not consider Indigenous knowledge are incomplete at best and hegemonic at worst (Battiste, 2017). Place-based pedagogy ought to acknowledge Indigenous perspectives as communities walk alongside each other. Although school improvement was the focus of this particular case, I wonder how rural educators might connect rural farmers with Indigeneity as we seek reconciliation. Perhaps if rural educators co-created place-based approaches to education and co-composed curriculum alongside their Indigenous neighbors all of our students would benefit.

As I reflect on the voices that I paid the most attention to, it is clear that I prioritized Reggie's perspectives. In part this is due to the fact that, of the three interviewees, he had been at New Haven through the entire transformation. However, as Stelmach (2011) observed, gender inequity is a key issue as patrilineal inheritance of wealth and land as well as gendered division of labour persist in rural contexts. The author asserted, "to continue a paradigmatic shift toward social justice for women and girls, however, it is critical that rural educators be cognizant of the gendered construction of rural work" (Stelmach, 2011, p. 34). Although this issue was beyond the bounds of my particular case, it is critical that rural educators consider how their program construction addresses such imbalances.

In my work in rural education, I am beginning to see and understand the importance of place. Donovan's (2016) definition of place helps expand its meaning, "the idea of 'place' extends beyond the locations where people live. Place is a narrative which

shapes identity and culture and provides an understanding of experience" (p. 1). Rural students who do not see themselves in their education must leave behind parts of themselves or experience incredible friction within the existing system (Lessard, 2015). Acknowledging *place* through place-based pedagogy may help change the experience of students who are disengaged or marginalized in our schools.

Place-based pedagogy provides experience and learning in meaningful contexts. Classroom instruction in place-based pedagogy prioritizes local field trips, the inclusion of local history, culture and language, and collaboration and co-creation with community members. Classroom teachers have several and varied demands on their time; therefore, implementing place-based pedagogy may prove challenging with limited resources. Educational leaders must prioritize place-based approaches to give agency and support to classroom teachers. Successful and sustainable adoption of place-based pedagogy will require creative scheduling and careful allocation of funds. However, place-based learning does not need to be complicated. Accessing connections to place can be as simple as integrating the nearest park into a science lesson or inviting a local artist to help explore a new technique. Through "conscientious collaboration" educational leaders and teachers, together with community partners, can provide highly engaging, relevant, place-based learning – ultimately benefitting *all* students (Battiste, 2017, p. 69).

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Appendices

Appendix A – Letter of Introduction and Consent

Dear Potential Participant,

Before agreeing to participate in this research, we strongly encourage you to read the following explanation of this study. This statement describes the purpose and procedures of the study. Also described is the participant's right to withdraw from the study at any time. This study has been approved by the Research Ethics Board of Concordia University of Edmonton.

Explanation of Procedures
This study is designed to examine the ways in which school-based farm initiatives influence student learning and the school community. I am conducting this study to learn more about this question since it has not been studied much in the past. **Participation in the study involves a face-to-face interview,** either in-person or using video conference technology, which will last for approximately one hour. The interviews will be conducted by one researcher, audio-taped and later transcribed for the purpose of data analysis. Participants will be provided a copy of the interview transcript with the opportunity to redact or modify any responses.

Risks and Discomforts
There are no risks or discomforts greater than everyday life that are anticipated from your participation in the study.

Benefits
The anticipated benefits of participation are the opportunity to discuss feelings, perceptions, successes, and concerns related to the experience of school based farm initiatives and to contribute to understanding of decision-making during implementation and delivery of such programming. This project will add to the body of professional knowledge related to school based farms and may encourage other rural schools to consider moving forward with similar initiatives.

Confidentiality
The information gathered during this study will remain confidential and data will be stored in secure premises during this project. Only the researcher and research advisor will have access to the study data and information. There will not be any identifying names on the interview transcripts and participant names and any other identifying details will never be revealed in any publication of the results of this study. All files will be destroyed at the completion of the study. The results of the research may be published in the form of a research paper and may be published in a professional journal or presented at professional meetings. It may also be published in book form. The knowledge obtained from this study will be of great value in guiding professionals to be more effective in meeting the needs of rural students, families, and communities.

Withdrawal without Prejudice
Participation in this study is voluntary. Participants are free to withdraw consent and discontinue participation in this project at any time. Participants are also free to refuse to answer any question we might ask.

Further Questions and Follow-Up
Participants are welcome to ask the researcher any questions that occur before, during, or after the interview.

If you have other questions or concerns about the study, please contact the chair of the Research Ethics Board at Concordia University of Edmonton at 780-479-9384 or via e-mail at research@concordia.ab.ca

I, _____ (name), have read the above information and agree to participate in this study.

_____   _____

Participant Signature   Date

Appendix B – Interview Protocol

Pre-Interview Script

Interview Project Description

I am currently a student in the Master of Education in Educational Leadership program at Concordia University of Edmonton. I am conducting this study in order to examine the ways in which school-based farm initiatives influence student learning and the school community.

Description of Data Collection (recording and transcription)

I will be recording the conversation using an audio device. I will then transcribe the recording and then clean the transcription for clarity. I will share a copy with you to review. You may redact or modify any responses.

Protection of Data/Confidentiality

The information gathered during this study will remain confidential in secure premises during this project. Only the researchers and research advisor will have access to the study data and information. There will not be any identifying names on the surveys or interview transcripts; they will be coded and stored on an encrypted file on a password protected device. Your names and any other identifying details will never be revealed in any publication of the results of this study. All files will be destroyed at the completion of the study. The results of the research may be published in the form of a research paper and may be published in a professional journal or presented at professional meetings. It may also be published in book form. The knowledge obtained from this study will be of great value in guiding professionals to be more effective in meeting the needs of rural students, families, and communities.

Interview Length

I have eight interview questions. I intend to take no more than one hour of your time.

Permission to Proceed and Record the Interview

Given the information that I have shared, would you like to participate? Do you have any questions or concerns before we begin? Do you give me permission to record our conversation? (If no, I will write notes only).

Interview Questions

1) Can you tell me about your rural school? *(background)*

2) What inspired you to try school based farm programming? *(background)*

3) In what ways and to what extent have you engaged the community? *(role of community partnerships)*

4) In what ways and to what extent have you included local culture, knowledge, history and/or natural environments in your program?

5) What has worked well and why? *(unique strengths of the school community)*

6) What has been challenging (not worked so well) and why? *(unique challenges of the school community)*

7) What has the impact been on student learning? Could you share some examples? *(good for students?)*

8) Is there anything else you would like me to know?

Appendix C – Recruitment Emails

Administrator email:

Dear Principal _____,

My name is Jason Faber; I am a graduate student at Concordia University of Edmonton in the Educational Leadership program. I am interested in researching school-based farm programming. Would your school be interested in participating? As part of my qualitative research, I would like to conduct semi-structured interviews with you and up to three other members of your staff.

Let me know if you are interested in participating.

Thanks for your time.

Sincerely,

Jason Faber

Participant email:

Dear _____,

My name is Jason Faber; I am a graduate student at Concordia University of Edmonton in the Educational Leadership program. I understand that you have been involved at _____ (school name) and have helped with _____ (farm initiative). I am interested in researching school-based farm programming. _____ (principal) has granted me permission to research your school. Would your school be interested in participating? As part of my qualitative research, I would like to conduct semi-structured interviews.

Let me know if you are interested in participating.

Thanks for your time.

Sincerely,

Jason Faber

Appendix D – Research Ethics Board Application

Concordia University of Edmonton Research Ethics Board

GRADUATE STUDENT
Application to Involve Human Participants in Research
[Behavioural / Non- Medical]

Please refer to the Concordia's Faculty Handbook and Research Ethics Board Website prior to completion and submission of this application.

> You can LOCK the form to CHECK the CHECKBOXES. If you don't see the icon of the LOCK – go to VIEW - TOOLBARS – FORMS. Make sure FORMS is checked then you will see the icon of the LOCK.

Send in this form and all accompanying material in quadruplicate if being submitted in hard-copy. If submitting by e-mail, send the application plus attachments, and forward the original signed signature page to the Chairman of the Research Ethics Board, Concordia University of Edmonton.

Date: August, 2021

Application Status: **New** ☒ Change ☐ Renewal ☐

Protocol#:

SECTION A – GENERAL INFORMATION

1. **Title of the Research Project: An Inquiry into the Influence of School Based Farm Initiatives on Student Learning and the School Community**

2. **Investigator Information:**

	Name	Dept./Address	Phone No.	E-Mail
Graduate Student	Jason Faber	MEd	■■■	jfaber@student.concordia.ab.ca
Faculty Supervisor	Dr. Teresa Fowler	Faculty of Education, Department of Physical Education & Wellness	1-780-378-8431 ext. 431	teresa.fowler@concordia.ab.ca
Other Investigator(s)				
Department Head	Dr. Lorin Yochim	Graduate Coordinator, Faculty of Education	1-866-479-5200	lorin.yochim@concordia.ab.ca

3. **Proposed Date** (a) of commencement: September 2021
(b) of completion: April 2022

4. **Indicate the location**(s) where the research will be conducted:

Concordia University of Edmonton ☐

Community ☒ Specify Site:
Prairie Land Public School Division

5. **Other Research Ethics Board Approval**

(a) Is this a multi-centred study? ☐ **Yes** ☒ **No**
(b) Has any other institutional Ethics Board approved this project? ☐ **Yes** ☒ **No**

(c) If Yes, there is no need to provide further details about the protocol **at this time,** provided that **all** of the following information is provided:

Title of the project approved elsewhere:

Name of the Other Institution:

Name of the Other Board:

Date of the Decision:

A contact name and phone number for the other Board:

A copy of the application to the other institution together with **all** accompanying materials

A copy of the clearance certificate / approval

If all of the above information cannot be provided, please complete the balance of this application.

(d) Will any other Research Ethics Board be asked for approval? ☐ **Yes** ☒ **No**
If yes, please specify

6. **Level of the Project**

☒ Graduate Student Research

☐ Other (specify)

7. **Funding of the Project**

(a) Is this project currently being funded ☐ **Yes** ☒ **No**
(b) If **No**, is funding being sought ☐ **Yes** ☒ **No**
(c) Period of Funding: From To:
(d) Agency or Sponsor (funded or applied for)

☐ CIHR   ☐ NSERC   ☐ SSHRC
☐ ARB

☐ NIH   ☐ Other (specify):

8.   **Conflict of Interest**

(a)   Will the researcher(s), members of the research team, and/or their partners or
         immediate family members:

 (i) receive any personal benefits (for example a financial benefit such as
   remuneration, intellectual property rights, rights of employment, consultancies,
   board membership, share ownership, stock options etc.) as a result of or being
 connected to this study?   ☐ **Yes**   ☒ **No**

(ii) if **Yes**, please describe the benefits below. (Do not include conference and
travel expense coverage, possible academic promotion, or other benefits which
are integral to the conduct of research generally).

(b)   Describe any restrictions regarding access to or disclosure of information (during or at the end of
the study) that the sponsor has placed on the investigator(s).

SECTION B – SUMMARY OF THE PROPOSED RESEARCH – *Please be as Clear and Concise as
Possible*

9.   **Rationale**

         Describe the purpose and background rationale for the proposed project, as well as the
         hypotheses(is)/research questions to be examined.

         I believe rural schools must be innovative to navigate the challenges inherent in

education in rural Alberta. Issues in rural education include attracting and retaining

qualified staff (Wessels & Wood, 2019); providing a variety of learning opportunities

(Bradford, 2019); budgetary constraints related to low enrolments (Looker & Bollman,

2020); and the constant threat of closure or amalgamation (Barter 2014). Rural students

also tend to have lower educational attainment and corresponding high dropout rates

(Looker & Bollman, 2020). Additionally, rural students, families, and communities

experience tension within an urban-centric educational system that often depicts

rurality as a deficit (Corbett, 2014). Students and families who do not see themselves in the school, curriculum, or school system are more likely to be disengaged from the school community. This disconnect is particularly acute for Indigenous students and families (Bang et al., 2014; Stelmach, 2011).

School-based farm programs have emerged as a potential way for some school communities to face the challenges present in rural education. School-based farm programs are developed within the school in partnership with the local community (as opposed to a program developed outside the school community). For example, a school in Alberta developed a program for grade 10 and 11 students for students interested in learning more about agriculture within the context of the Alberta program of studies. The students attend school at a local farm where they integrate the required courses with farm life. The purpose of this research is to investigate school-based farm initiatives and their potential influence on student learning and the school community. My central research question is, do school farm initiatives positively influence student learning? The spirit of the inquiry is to ask teachers and educational leaders in rural schools with farming initiatives what is working? And, why is it working? As part of my semi-structured interview I will ask questions related to community engagement, place-based learning, success, challenges, and impact on student learning.

10.   **Methodology**

Describe sequentially, and in detail, all procedures in which the research participants will be involved (e.g. paper and pencil tasks, interviews, surveys, questionnaires, physical assessments, physiological tests, time requirements etc.)

N.B. Attach a copy of all questionnaire(s), interview guides or other test instruments.

During the fall semester, I will identify and collaborate with one school in rural Alberta to complete an intrinsic qualitative case study (Stake, 1995). Criteria for selection include; (a) the school must be rural, and (b) the school is providing school-based farm programming.

After REB approval consent to participate will be sought from the school division, school administrator (as per school division procedures), and participants. Participant consent (Appendix A) will include consent for semi-structured interviews, including digital recording and transcription.

I will employ two methods of data collection; document analysis and semi-structured interviews. Documents will include materials produced by the participant school and school divisions related to their farm programming, such as advertisements, program information brochures, and online publications.

I will conduct semi-structured interviews (Appendix B) with up to four staff members. Interviews will either be conducted on-site or via video conferencing technology, depending on what best suits the participants.

11. **Experience**

What is your experience with this kind of research?

I am new to qualitative research. Through EDUC 630, Leadership in Comprehensive School Health and Wellness, I participated in an interview assignment. As part of the assignment, we produced an interview protocol, conducted three semi-structured interviews, and practiced data analysis. Additionally, in EDUC 660,

Research Ethics and Methodologies, I learned about qualitative research. This project

will be my first experience formally conducting qualitative research.

12.   **Participants**

Describe the number of participants and any salient characteristics (such as age, gender, location, affiliation, etc.)

I will interview up to four staff.

13.   **Recruitment**

Describe how and from what sources the participants will be recruited, including any relationship between the investigator(s) and participant(s) (e.g. instructor-student; manager-employee).

N.B. Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

After approval from Concordia University of Edmonton and the school

districts, I will reach out to principals of the schools who have rural farm programs as

per their district guidelines and then contact the teacher participants via an email

(Appendix C) to seek participation in my study. If any principals decline, I will

respectfully thank them for their time and reach out to others.

If the principal agrees to participate I will then email staff to seek participation

in my study (Appendix C). If any participants decline, I will respectfully thank them

for their time and reach out to others.

14.   **Compensation**

	Yes	No
(a) Will participants receive compensation for participation?	☐	☒
Financial	☐	☒
In-Kind	☐	☒

Other (specify)
(b) If yes, please provide details.

(c) If participants choose to withdraw, how will you deal with compensation?

SECTION C – DESCRIPTION OF THE RISKS AND BENEFITS OF THE PROPOSED RESEARCH

15.   **Possible Risks**

1. Indicate if the participants might experience any of the following risks:

a) Physical risk (including any bodily contact or administration of any substance)?   ☐ **Yes** ☒ **No**

b) Psychological risks (including feeling demeaned, embarrassed worried or upset)?   ☐ **Yes** ☒ **No**

c) Social risks (including possible loss of status, privacy and / or reputation)?   ☐ **Yes** ☒ **No**

d) Is there any deception involved?   ☐ **Yes** ☒ **No**

e) Are any possible risks to participants greater than those the participants might encounter in their everyday life?   ☐ **Yes** ☒ **No**

2. If you answered **Yes** to any of a – e above, please explain the risk.

3. Describe how the risks will be managed (including an explanation as to why alternative approaches could not be used).

There are no risks greater than everyday life involved in this study.

16.   **Possible Benefits**

Discuss any potential direct benefits to the participants from their involvement in the project. Comment on the (potential) benefits to (the scientific community) / society that would justify involvement of participants in this study.

Direct benefit to the participants from their involvement in my research project includes the opportunity for self-reflection, enjoyment of sharing about successful school programming, and access to potential insights from my final research project. Place-based educational practices are well-researched; however, there is no large body of research regarding school farm initiatives in Alberta. This project will add to the

body of knowledge and encourage other rural schools to consider similar innovative

practices to improve rural student learning.

SECTION D – <u>THE INFORMED CONSENT PROCESS</u>

17.   **The Consent Process:**

> Describe the process that the investigator(s) will be using to obtain informed consent, including a description of who will be obtaining informed consent and a script of what they will say, if anything.

I will initiate contact with potential participant school administrators through an

email. Once they confirm interest in participating in my research project, I will send

letters of information and consent to teachers in a farm based program. After consent

forms are signed and returned I will proceed with data collections. If they decline, I

will thank them for their time.

Please see the following documents attached as appendices to this application:

Appendix A: Letter of Introduction and Consent

Appendix B: Pre-Interview Script and Question

Appendix C: Recruitment Email

> Indicate how consent will be documented. Attach a copy of the Letter of Information if applicable and the consent form if applicable. If there will be no written consent, explain why not and describe the alternative means that will be used to document consent. Attach the content of any telephone script that will be used in the consent process (if applicable)

> For information about the required elements in the letter of information and the consent form, please refer to "**<u>Instructions for the Preparation of an Information Letter/Consent Form</u>**":

As individuals are working professionals, I do not see any challenging with

respect to obtaining consent. All data will be stored in a secured premise (my home)

during this study. Only myself and the research advisor will have access to the data. I

will store all personal data on separate, encrypted Microsoft word and excel documents on my personal, password protected laptop. Microsoft word and excel documents will be encrypted using the "protect document" feature that enables users to assign each document a password. Hard copies of consent forms will be stored in a locked filing cabinet in a locked office at my home. All data will be anonymized and no names or names of places will be revealed in any publications.

18. **Departures from general principles of informed consent by the use of deception or partial disclosure**

Identify any use of deception or partial disclosure of information that may constitute a departure from the principles of informed consent. Provide the rationale for the deception by answering the following questions:

a) Explain why it is impossible or impracticable to carry out the research and to address the research question properly, given the research design;

b) Explain the alternative designs that have been considered and why they will not be utilized;

c) Explain the risks to the participants;

d) Explain the plan to provide a debriefing which may offer participants the possibility of withdrawing consent and/or withdrawing data and/or human biological materials.

N/A

19.   **Consent by an authorized party**

If the participants are minors or for other reasons are not competent to consent, describe the proposed alternate source of consent, including any permission / information letter to be provided to the person(s) providing the alternate consent.

Minors will not be part of this research project.

20.   **Alternatives to prior individual consent**

If obtaining written documentation of participant consent prior to commencement of the research project is not appropriate for this research, please explain and provide details for a proposed alternative consent process.

N/A

21.   **Debriefing (Participant feedback**)

Explain what feedback/ information will be provided to the participants after participation in the project. (For example, a more complete description of the purpose of the research, access to the results of the research).

N.B. Please provide a copy of the written debriefing form, if applicable.

After the semi-structured interviews, I will provide each participant with a copy of the interview transcript. Participants may redact any part of the transcript or withdraw entirely from participating in the research project. Additionally, I will provide participants a copy of the final research report upon request.

22.   **Participant withdrawal**

a) Describe how the participants will be informed of their right to withdraw from the project. Outline the procedures which will be followed to allow the participants to exercise this right.

Consent will be ongoing and I will inform participants of their right to withdraw on the letter of introduction/consent, as part of the pre-interview script before conducting the semi-structured interview, after completing the interview, and in writing with the interview transcript. Participants may withdraw from the study at any point up to data analysis (projected for winter 2022) and all information about the participation and any data will be destroyed if they request at that point.

b) Indicate what will be done with the participant's data and any consequences which withdrawal might have on the participant, including any effect that withdrawal may have respecting participant compensation.

If a participant chooses to withdraw from the research project, I destroy all their data. I will delete all digital files completely and will shred all hard copies. There is no participant compensation; therefore, withdrawing will not affect compensation.

c) If the participants will not have the right to withdraw from the project, please explain.

The participant will be able to withdraw at any point – and their information and data will be destroyed. Consent is ongoing and will be revisited throughout.

SECTION E – CONFIDENTIALITY

23.   a) Will the data be treated as confidential?   ☒ **Yes** ☐ **No**

b) Describe the procedures to be used to ensure anonymity of participants or confidentiality of data both during the conduct of the research and in the release of its findings.

I will store all personal data on separate, encrypted Microsoft word and excel documents on my personal, password protected laptop. Microsoft word and excel documents will be encrypted using the "protect document" feature that enables users to assign each document a password. Hard copies of consent forms will be stored in a locked filing cabinet in a locked office at my home. Data will be anonymized by applying school and individual pseudonyms. Codes linking participant to pseudonyms will be stored separately from the data on an encrypted word document, on my password protected laptop. I will edit all transcripts and replace names and place names with pseudonyms. Additionally, research findings will be shared using pseudonyms only.

c) Explain how written records, video/audio tapes and questionnaires will be secured, and provide details of their final disposal or storage.

I will store research data digitally on encrypted files on password protected devices in a locked office. Files will be retained until completion of the program in June 2022. Any hard copies, i.e. consent forms, will be stored in a locked filing

cabinet. Hard copies will be retained until completion of the program in June 2022.

Upon completion of the program in June 2022, I will shred all hard copies and delete

all digital files completely from the password protected devices.

> d) If participant anonymity/confidentiality is not appropriate to this research project, explain, including providing details of how all participants will be advised of the fact that data will not be anonymous or confidential.

N/A