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Editorial

Articles

Essay

Faculty of Education, University of Regina

Editorial

Editorial for *in education*, June 2019 special issue

Despite the hope that educational systems are stable and impervious to unconstructive and toxic political, cultural, and economic shifts that swirl around them, there is little evidence to support this prospect. Continuous streams of uncertainty exist. Examples include swings in political governance with disconnected and opposing educational philosophies to the day-to-day living with global and national economic and social policies that directly affect schools and their administrative jurisdictions, and the ongoing push-pull between societal expectations and individuals' actions. Our teachers and students are vulnerable in their school's educative spaces and often because of simultaneous unsettling occurrences. We rely on teachers who engage in thoughtful and informed practice and who are stimulated with reputable theory to provide youth with meaningful educational experiences.

The articles and essay in this special issue clearly demonstrate an attentiveness to teaching and learning from multiple perspectives, practices, and theories. At first glance, it is difficult to discern a common thread that connects this issue's five articles and one essay. Yet in subsequent reviews, there emerges a theme of hope and a realization that research methodologies have the power to seek and discover, uncover, and invite contemplation. Embedded in these methodologies are stories about transitions and connections, reflection, and family and school relationships that sustain and promote an educational praxis that fosters teaching and learning.

The title of Hang Thi Thuy Tran's article, *An Autobiographical Narrative Inquiry Into the Experiences of a Vietnamese Mother: Living Alongside Children in Transition to Canada*, clearly signals the content. In this article, Hang studies familial curriculum making from an autobiographical position, which offers a unique insight into the lives of children and mothers who recently arrive from Vietnam. The desire to retain language and traditional cultural identities while at the same time nurturing transitions to their Canadian lives could be promising if connections between with teachers and families are cultivated.

Eleanor Gillis and Jennifer Mitton-Kükner, authors of *Exploring Teachers' Experiences of Participating in Teacher Inquiry as Professional Learning*, invite readers to consider what is required for teachers to engage in professional inquiry. The aim of this form of directed inquiry is to purposely advance professional growth. At the core of this writing is the reflective experiences of three teachers who were in a year-long teacher inquiry as a response to their school's professional learning plan. These teachers, along with this article's authors, studied their teaching experiences using teacher inquiry as a research methodology.

Continuing the theme of teacher inquiry, Nathalie Reid, Joanne Farmer, Claire Desrochers, and Sue McKenzie-Robblee studied teachers' technological communications in their article titled: *Early Career Teachers' Experiences of Communicating With Families via Technology: Educatively Dwelling in Tension.* Five co-researchers along with 20 early-career teachers explored how the use of technology, for example, forums, e-mail, and social media, influenced teachers' interactions with students, families, and colleagues. Understanding ethical and relational aspects of technology use and implications for preservice and professional teacher education are significant messages in this article.

Trauma-Informed Practice for New Teacher Standards and the Epidemic of Our Times, written by Alexandra Fidyk, raises awareness about what practices could be used to help teachers better understand and support the mental and emotional health of young girls. Anchored in an ecological framework, Alexandra offers a persuasive argument that young girls' mental health relies profoundly on their relationships and engagement with the environment, which includes teachers and schools.

Melissa Oskineegish furthers the contemplation theme in her article, *The Role of Self-reflection in an Indigenous Education Course for Teacher Candidates.* Preservice teachers participated in a mandatory course that explicitly incorporated self-reflection. Through a series of activities and subsequent study of the preservice teachers' survey responses and a select group of cross-referenced reflection papers, findings show that articulated biases will shift and ideally advance teachers' Indigenous student relationships and their teaching of Indigenous content.

The Iglu and the Tent: Centring the Northern Voice in Mathematics Teaching, is an essay authored by Fok-Shuen Leung. Tensions exist between mathematics teaching approaches in Canada's northern and southern regions. The underlying epistemologies, as Fok-Shuen explains, originate from different locations, figuratively and geographically. These ideas are developed throughout the essay with the last paragraph succinctly documenting a valuable take-home message for all of us.

Throughout the articles and essay presented in this issue, the need for quality preservice teacher education and in-service teacher professional development is well-defined. Although teaching and learning reside at intersections of unsettling local and global events, it is reassuring that there is an undeniable resolve to help youth learn the desired content and to live in communities with respect and care. It is with a grateful thank you to the authors and the reviewers that the intent of this special issue is achieved; that is, to disseminate findings that address theoretical and applied research about teaching and learning.

Undertaking a special issue that upholds the scholarship of this journal's previous authors and the quality guidelines of the editors and editorial team is a huge commitment and daunting task. It is only because of the immeasurable guidance and help from the Managing Editor, Shuana Niessen, and Editor-in-Chief, Dr. Patrick Lewis, that this task was accomplished. Thank you.

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An Autobiographical Narrative Inquiry Into the Experiences of a Vietnamese Mother: Living Alongside Children in Transition to Canada

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Abstract

Since my family came to Canada, family story nights have become our daily practice. Within such moments, I explore how I, as a mother, have been sustaining the Vietnamese language and traditions in my family and how, when transitioning to a new land, this has become the core of our familiar curriculum making (Huber, Murphy, & Clandinin, 2011). As I share Vietnamese stories with my children, they reply to me in English. Also, they only have a distant understanding of Vietnamese culture and the intergenerational traditions of our great family back home. Acknowledging these transitional processes allows me to nurture their love and understanding of Vietnamese language, culture and traditions. As I inquire into my own experiences as a mother, I trace my ancestral heritage in my homeland, where, in Thúy's (2012) words, "a country is no longer a place but a lullaby." Meaningfully, the following questions have shaped my research puzzles: (a) What are possible ways to build our familial curriculum in integration with our homeland language, culture, and traditions; and (b) How could I as a mother sustain these three essential areas in my children's lives in Canada? I embrace autobiographical narrative inquiry as the methodology for my paper. Narrative inquiry draws attention to story as both the phenomenon under study and narrative as the methodology for the inquiry (Clandinin & Connelly, 1994). I will be living, telling, retelling, and reliving (Clandinin, 2013) my storied experiences and my children's in our familial curriculum making through cooking, reading, and painting. By attending to my daughters' experiences, I inquire into their transitions differently, that is to understand their own transitions narratively (Clandinin, Steeves & Caine, 2013). Significantly, this paper will bring understandings on Vietnamese newcomer mother's and children's familial curriculum making as a way to sustain the homeland's language, culture, and traditions and to support the children in their transition to a new country as well as inform related realities, knowledges, and approaches in education.

Keywords*:* experience; transition; curriculum making; language; culture; traditions

An Autobiographical Narrative Inquiry Into the Experiences of a Vietnamese Mother: Living Alongside Children in Transition to Canada

A winter night
My children asked me in English:
"What's the meaning of your name?"
In Vietnamese, I replied:
"Nó là hi vọng xanh, con ạ."
(It's a blue hope, my dears.)
Saying thanks to me, they asked:
"Why was so, Mommy?"
My mind travelled back
Five, ten years ago.
My Grandpa was old
And smart in his 90s.
I visited him
In our old home.
Hugging me, he said:
"Never forget, my dear
Your name is a blue hope.
Our family traditions
Always live with hope and pride.
Never give up, my dear
But step far and farthest
To make me proud
On earth and in heaven."
Now, look at the altar,
I miss him so much.
His Vietnamese words are here
To answer the children's question in English.
What if one day
Our traditions and language
Go far away
And are forgotten
What will happen in my children's lives?
In their life making
And in the lives of their children?

(Poetic fragment, written Winter 2018)

The poetic fragment above shows something of the practice of family story nights between me and my daughters, Joey and Sherry, as we have been in transition to Canada. We usually read aloud a bedtime story every weekday and live out family story night on the nights of the weekends. During family story nights, we read a book together— mostly in Vietnamese and sometimes in English—and then continue with long conversations about our great family: the current members, the ancestors, the traditions, fun stories told about happenings in our family, and so on. The family story night that becomes somewhat visible in the poem above is special to me because when I shared with my daughters the names of their grandparents and great

grandparents, they asked me about the meaning of my name. More meaningfully, they raised the question in English language while my story was in Vietnamese language. Later, I explained my name's meaning with a small story in Vietnamese. Within that conversation, I used my mother tongue, Vietnamese, while my children used English, the language they have been learning since we came to Canada in summer 2015. I have been thinking so much about this experience as it has been repeated many times since that earlier family story night.

Over time, this experience led me to explore how I, as a mother, have been trying to sustain Vietnamese language for my children and with my children. Similarly, I am also aware that my children's understanding of the culture and traditions of our homeland and our great family is from a distance. Acknowledging these experiences in our transition to Canada encourages me to nurture my children's love and understanding for our mother tongue language and our familial and cultural traditions. As a newcomer Vietnamese mother living alongside my children in Canada, I do not want my children to no longer carry these treasures of my family and Vietnamese peoples. As I inquire into this experience and the everyday family practices that it shows, I trace our ancestor's heritages in my homeland "where a country is no longer a place but a lullaby" (Thúy, 2012, p. 140).

Since the beginning of our transitioning to Canada, because I see the significance of sustaining our language, traditions, and culture, I have carried two wonders: in part, I have wondered about how to sustain and extend our everyday familial practices inclusive of our homeland language, traditions, and culture and, too, I have wondered about my place, as a newcomer Vietnamese mother, in this process of sustaining these ways of knowing, being, and doing in our ongoing lives in Canada. Even though these wonders shaped my experiences during the first year of our life making in this new country, I could not figure out how to inquire into them. In part, I struggled because of a lack of available resources for Vietnamese newcomers like me to sustain our language, traditions, and culture. As well, as a mother, I had not experienced these tensions when we lived in Vietnam. That is, I remember saving almost all of my familial time with my first daughter for her homework at our small house in Saigon. For those days, we had tried our best to fulfill her schools' requirements of weekly tests, monthly tests, mid-term tests, end-of-term tests, and so many further exercises—each of which required 'beautiful hand-writing practice'. Although Joey was just in Grade 1, too much homework kept us far from thinking about our language and our everyday familial, cultural, and traditional practices. More obviously, when we still lived in our home country, the sense of the meaning of place was not as strong as in those moments after we moved to Canada. Here, I am reminded of Basso's (1996) understanding of certain places as being imbued with a power to teach individuals in the key ways of wisdom. Reading Basso has given me more thoughts on my puzzles around our familial curriculum in Canada and the shaping influence of our everyday practices in the lives we are each making.

Cornerstones of Living Alongside Children in Transition

Theory of Experience

As I work on my autobiographical stories of living alongside my children, I find it essential to keep experience as the foreground of my paper. For Dewey (1938), education, experience, and life are inextricably intertwined. Generally sensing, when one asks what it means to study

education, the answer is to study experience. Supporting Dewey, Clandinin and Connelly (1994) firmly assert:

> The study of education is the study of life, for example, the study of epiphanies, rituals, metaphors, and everyday actions. One learns about education from thinking about life, and one learns about life from thinking about education. (p. 415)

Central in Dewey's (1938) theory of experience and education is the term *situation,* which is specified by two criteria—*interaction* and *continuity*. *Interaction* refers to the intersection of internal and existential conditions. *Continuity* accounts for the temporal positioning of every situation. Meaningfully, situations do not just happen; instead, they are historical and temporally directional according to the intentionality of the organism undergoing temporality. Thus, while we are talking about experience, we are talking temporally (Clandinin and Connelly, 1994, p. 416).

Additionally, while Dewey believed continuity is an essential part of all experience, he considered *growth* as the overarching goal of any experience, in terms of quality and types of experiences. Meaningfully, when unfolding the experience, each subsequent situation offers us "a novel perspective to look back on the experiences leading up to, and out of, an experience, making *growth* provisional and emergent rather than fixed and found (Downey and Clandinin, 2010, p. 384).

Narrative Understanding of Transition

Clandinin, Steeves, and Caine (2013) identify five qualities that shape their narrative understandings of transition. Firstly, transition is shifting over time and place; as when we think narratively about lives in the making, our past experiences become part of new stories to live by and their forward-looking stories. Secondly, with narrative inquiry, "we understand life making as a process; composed over time, in places, and in different relationships" (Clandinin, Steeves, & Caine, 2013, p. 220). With this understanding, I see that people are always in continual movement, and their transitions speak to lives unfolding. Thirdly, these three authors see transitions as liminal spaces, based on Heilbrun's (1999) description of the "in-between" state created in transition. Heilbrun (1999) portrays this liminal space as "an indeterminate stage where we are neither here nor there" (p. 221). Fourthly, Clandinin et al. (2013) give me a way to see that improvisation is an integral part of transition. They pull out this point from their research with the early school leavers and from Bateson's (1994) suggestion that moment-to-moment embodied ways of improvisation give us a way to compose lives across transitions. Finally, thinking narratively paves a view that imagination and relationship are not separated from transitions. Within this awareness, the intertwinement between imagination and relationship helps us know more about our identity:

> Relationships ignite imagination even as imagination ignites relationship. Relationships provide grounding from which to feel at ease, to make up other worlds, other ways of being. Relationships also provide opportunities to see things differently; broadening imagination of what could be when prescribed plotlines are no longer available. (Clandinin et al., 2013, p. 223)

Above all, these five qualities of narrative understandings of transition powerfully prepare my knowledge before entering and exploring experiences of myself as a mother living alongside children in their transition to a new country.

Familial Curriculum Making

Huber, Murphy, and Clandinin's (2011) conceptualization of familial curriculum making has supported me to re-story the significance of my children's (Sherry and Joey) and my interactions with one another and others in our home and community places. As highlighted by Huber et al. (2011), while the concept of curriculum making has been used in education for many years, it is mostly applied to "teachers and others who attended to curriculum making in relation to the mandated or planned curriculum, that is, to curriculum documents or plans and to curriculum materials" (p. 9). As noted by Huber et al.'s (2011), the narrative understanding of curriculum opened potential for understanding curriculum not only as a course of study but also a course of life (making): "We understood curriculum making as a life-making process (Clandinin & Connelly, 1992) in which identity making, that is, stories to live by, was central" (p. 221).

As Huber et al. (2011) attended closely to the worlds of children in their research on experiences of children, families, and teachers in an era of growing standardization and achievement testing, they saw another place of curriculum making, different from school curriculum making, which they conceptualized as "familial curriculum making." In their perspective, familial curriculum making is seen,

> As an account of parents'/families' and children's lives together in homes and communities where the parents and families are an integral part of the curricular process in which families, children/learners, subject matter, and home and community milieu are in dynamic interaction. (pp. 7–8)

Significantly, Huber et al. (2011) have shaped my knowledge of familial curriculum making around five aspects. Firstly, they view familial curriculum making as intergenerational, in which I see the potential of the family's language, traditions, and culture to be lived, told, retold, and relived across different generations, interconnectedly and interdependently. The second aspect of familial curriculum is its responsiveness, which comes out of the daily interactions happening among family members, such as the interactions between children and parents, brothers and sisters, and so on. What is beautiful here is that familial curriculum making could include a wide range of activities, for example, "baking, singing, making puzzles, learning the alphabet, cleaning, name printing, drawing, telling stories, making plays, watching TV or a movie, taking walks, going for bike rides, picking flowers, and resting" (Huber, Murphy, & Clandinin, 2011, p. 41). A third aspect is that familial curriculum making needs to start from the child, which means that the child's identity making is the center of this curriculum. I learned from this aspect that the child, as do we all, carries all of her or his experiences in her or his body; thus, understandings of knowledge as embodied are central here. Additionally, a fourth aspect I am drawn toward is that familial curriculum making has multiple co-composers. These diverse co-composers are people in the child's family and in her or his surroundings, and they could also be things in the home and community contexts of the child such as music, books, animals, and the natural world. The last aspect is that familial curriculum making focuses on life in the long term. As the temporal aspect of familial curriculum making always looks forward to

the future, it helps create the ground and strength for the child to compose her or his future with her or his best capacity.

As I have lingered with these understandings of familial curriculum making, I realize that they offer another way for me to attend to the wholeness and complexity of lives in transition. From my earlier stories I realize that in Sherry and Joey's transition to school, school curriculum making has been privileged. In my thinking narratively with these experiences, I see the urgency of attending to familial as well as school curriculum making. I wonder if this multi-perspectival attending could better support my children and myself as a mother, all of whom are new to and in transition to Canada, where we are composing our lives.

Intergenerational Narrative Reverberations

As I think about who I am and who I am becoming as well as how my experiences have brought me to living alongside my children in our transition to Canada, I am very much reminded of my extended family's stories, and the stories I lived before transitioning to this country. Young's (2005) research, *Pimatisiwin: Walking in a good way. A narrative inquiry into language as identity,* shows me the importance of intergenerational narrative reverberations, which relate to the loss of language, traditional and cultural knowledge, spiritual, and relational practices, particularly family relationships. Being a student of Residential School and assimilated to speak English only, Young (2005) shared that she felt sad that she did not know her language, Anishinaabe. I was very drawn in by Young's stories of the loss of her language as I deeply resonated with her sense that language and identity are connected and that losing our language is like losing a part of our selves. I do not expect my children to lose their ability to speak our first language. If they do, they will feel the loss of their Vietnamese identity.

Young (2005) has also brought to me the reverberations of traditional and cultural knowledge within intergenerational stories. As I think of my experiences alongside the experiences that Young (2005) inquired into in her life making, I wonder what I as an offspring of Vietnamese ancestry and a child of my great family wish for my children in relation with sustaining our language, traditions and culture.

Methodology: Narrative Inquiry

My journey into the understanding of narrative inquiry is profoundly connected to my transition to Canada. I still remember the first time I came to the Research Issues table at the Center for Research for Teacher Education and Development, University of Alberta. It was at this beautiful table with amazing people, I started to learn about narrative inquiry by bringing my stories to share and by hearing the stories of others shared. My very first imagining about this methodology is that people do not only tell stories but also think over the stories again and again when revisiting them. Later, I was very excited to discover the conceptualization of narrative inquiry from Clandinin and Connelly (2000):

> Narrative inquiry is a way of understanding experience. It is collaboration between researcher and participants, over time, in a place or series of places, and in social interaction with milieus. As inquires enter this matrix in the midst and progressive in the same spirit, concluding the inquiry still in the midst of living and telling, reliving and retelling, the stories of the experiences that made up people's lives, both individual and social. Simply stated, narrative inquiry is stories lived and told. (p. 20)

Here I get to learn that narrative inquiry is the study of experience contextually and temporally. Clandinin and Connelly's (2000) conceptualization of narrative inquiry experience is central as is the understanding that the closest we can come to experience is through the stories people live and tell.

Being different from other methodologies, a narrative inquiry is the result of collaborative composition of stories between researcher and participants. Together, they co-compose, tell, and retell stories in order to "honour shared experiences through relationships and offer the ability to grow through stories" (Lessard, 2010). Additionally, narrative inquiry is conceptualized in a three-dimensional space, which includes temporality, sociality, and place. The first dimension is temporality or time, covering the past, present, and future. These three aspects of our "lived time" are not linear but blended and supportive to each other. The second dimension is sociality, or the personal and social relationships of participants. According to Clandinin (2013), "social conditions refer to the milieu, the conditions under which people's experiences and events are unfolding" (p. 40). In particular, "the conditions are understood in terms of cultural, social, institutional, familial, and linguistic narratives" (p. 40). At this important point, I consider how plentiful, diversified and complex the participants' relationships are. The third dimension relates to place, which is defined by Connelly and Clandinin (2006) as "the specific concrete, physical, and topological boundaries of place or sequences of places where the inquiry and events take place" (p. 480). Lessard (2014) states, "Reflecting on the important of place within experience and the multiple meanings within its definition helps me inquire into the stories that are shared on various landscapes but also the places that we have travelled to as we share our stories" (p. 46).

In sum, narrative inquiry, with its three-dimensional space of temporality, sociality, and place, is my fundamental research methodology because it could help me revisit and understand my experiences as well as my children's experiences. According to Yeom (1996), when we tell and retell our stories, we respond "to the whole and reflect on the meaning of our experiences to understand ourselves and the world around us" (p. 35). Eventually, by "living, telling, retelling, and reliving" (Clandinin, 2013) the stories of our transition to Canada, I may understand my experiences as a mother living alongside children. More meaningfully, the understandings of my experiences have paved the way for me to attend my daughters' experiences, understand and support them as newcomer children to Canada and to Canadian schools.

Telling Stories of a Mother Living Alongside Children in Transition to a Country

It was not until I read *Places of Curriculum Making: Children's Lives in Motion*, in which Huber et al. (2011) reconceptualize curriculum making that I began to know familial curriculum making as the ways that parents, families, community members, and children live with one another in their homes and communities. This understanding supported me to begin to awaken to seeing that what I have been doing with my children at home is curriculum making. Later, as I began to name this process familial curriculum making, I deeply sensed its importance in our daily life making.

Gradually becoming imbued with the significance of familial curriculum making, I have carefully begun to shape our family story nights as a curriculum that starts from, and with, my children; that I, as a mother, and my children are co-composers in and of this week-end as well as other daily practices; and that our familial curriculum making stretches backward in time and

across place to earlier generations of our great family. Because my children love Vietnamese traditional foods, books, and arts I decided that these three aspects could be the fertile land for growing their knowledge of our mother tongue language, traditions, and culture.

Cooking as an Intergeneration-Nested Tradition

My daughters are interested in cooking even though they are still in the early grades of elementary school. I now understand that the love of cooking, especially cooking our Vietnamese traditional foods, is an intergenerational reverberation in our great family. In our hundreds-year-old kitchen located in my birthplace village, teaching and learning how to cook has been a curriculum passed through generations of our female ancestors. My great-grandmother taught my grandmother, my grandmother taught my mother, and my mother taught me the same lessons of making traditional dishes of Vietnamese, or our village, and of our family. I now see these significant and unique teachings of different cuisine as spiritual treasures that I brought to our new kitchen in Canada, where I continue teaching my daughters how to cook. For every Lunar New Year celebration, we always make and cook *Chưng* cakes, a Vietnamese traditional heritage food. Significantly, this cake symbolizes the earth and conveys the wishes for a new year full of health and prosperity.

The preparation for this cake requires time, patience, and skillful techniques but the outcomes are wonderful. As usual, I soak the glutinous rice and green bean in cool water, mix pork with some spices and let them rest for a night. The following morning, we prepare the banana leaves and cords to get ready for wrapping the cakes. My children really enjoy the moments when we wrap the cakes together. Putting the banana leaves inside the wooden frames, we add rice for the first layer, steamed green bean for the second layer, pork for the third layer but just in centre area, then green bean again for the fourth layer, and finally rice for the last layer. After that we wrap and tie the cake with the cord so that it looks nice in the square shape. What makes the wrapping time more fun and meaningful is that I, as a mother, do not only teach my daughters the ways to make *Chưng* cakes but I also tell them stories about the meanings of the cakes and of family stories that have happened in our great family over time and place: Stories of our ancestors beginning life in the village four hundred years ago, stories of their great-great-grandparents building the church, stories of great-grandparents working hard to raise their grandparents during the periods of losing crops, stories of grandparents overcoming poverty to fulfill the dreams of overseas study are among the important stories that we tell and retell yearly in preparation of Chưng cake. My children are always keen on these stories and raise many questions for more knowing and understanding. Interestingly, my parents in Vietnam also make the *Chưng* cakes at the same time, so we often have conversations via Skype or Face book Messenger. Beautifully, three or four generations enjoy sharing stories, fun, and family love during the moments of wrapping *Chưng* cakes, across the places of Vietnam and Canada, a distance of more than ten thousand miles. As I finish the 11-hour boiling step, I choose the best cakes to put on the altar as a gift to our ancestors. Looking at the *Chưng* cakes on the altar, I promise to my ancestors that as a mother, I will sustain this tradition for my children as it has become a sacred part of our familial curriculum making.

Figure1. Photo collage of making *Chưng* cakes, taken Lunar New Year 2018

Because cooking has been a thousand-years tradition of our people, it plays an essential role in Vietnamese family life. Being inspired by this lengthy tradition, I wrote a poetic fragment denoting our kitchen, where different female generations of my great family as well as other Vietnamese families have been sharing knowledge and love to each other.

My Mom was young
My Grandma taught her cooking
Those Vietnamese traditional foods
Chưng cake, Tét cake
And lotus seed sweet soup
Our little kitchen
Brings all flavours of the countryside
I turned to six
My Mom taught me cooking
In the same kitchen
Same Chưng cake, Tét cake
The lotus seeds
And other cultural dishes
All raised me up
My daughter is seven
I teach her cooking
Same Chưng cake, Tét cake
Same lotus seeds
In our new kitchen

In a new country
Those traditional foods
Since my Mom and Grandma
Are now with us
In our conversations
In our stories
Traditions
And wisdoms
Of family

(Poetic fragment, written Winter 2016)

As I lingered with images and memories of our kitchen in the past and in the present alongside my wonders of connections between being in transition, intergenerational narrative reverberations, and the stories we live by, with, and in (Okri, 1997; Clandinin, 2013), as we make our lives, I thought about the intergenerational knowledge and education shaping my great family for a long time. I am humble to see how these stories we live by, with, and in include our traditional and cultural knowledge as well as the spiritual and relational practices that we have long inherited from our ancestors. As I am coming to see the kitchen as not only a space at a certain time, I sense these practices of cooking also shape my children's experiences as they are in transition to Canada; in this way the kitchen "travels" back and forth in me and other generations of our great family.

Reading Books as a Family's Everyday Practice

Another familial curriculum that Joey, Sherry, and I make together is reading books and telling stories. As in the poem of family story time that I shared earlier, reading books together is an everyday practice in our little family in Canada. For the weekdays, my daughters choose to read their favourite English books for bed time after they practice their spelling words and do the Mathletics® online. For the weekends, we have more time as the children do not have school the following mornings. I have filled up our family time after dinner with many books in Vietnamese language, some that I brought along as our journey to Canada began, some my mother had my friends carry from Vietnam when they visited us, some I borrow from Edmonton Public Library, and some are used books I buy online.

Some family story times I spend time with my children reading popular Vietnamese tales such as *Truyện Kiều* (*The Tale of Kieu*) written by Nguyễn Du (1820), who is a world renowned poet, whose work has been recognized by UNESCO. Sometimes we read by heart and even sing Nghe Tinh folk songs, an intangible cultural world heritage, and we read many more Vietnamese children's books. We also read *The Lotus Seed* (Garland, 1993), an English children's book about *Bà* (Vietnamese word for Grandma), a special Vietnamese woman with a strong love for the lotus seed that she carried to America as a valuable gift of her Vietnamese history, the precious characteristics of Vietnamese women, and a strong spirit of Vietnamese traditions. I mostly read but increasingly Joey reads with me. Sherry knows very few Vietnamese words, so she remains quiet and listens to us. After a story, or part of a story, many conversations unfold thanks to questions from my children and little pieces of stories for further clarification or explanation from me as their mother. In *The Tale of Kieu*, for instance, it is not only about the stories of a Vietnamese girl, who is beautiful both in appearance and in personalities, but also

about the ways people choose to sacrifice for country and the good relationship of sisterhood. As well, Nghe Tinh folk songs cover many meaningful lessons on love of nature, homeland, family, and community.

Spending time on reading books with my children, I have been awakened with two different thoughts. On one side, I have found that as we have gradually read these books, more love of our mother tongue language has grown in Sherry and Joey. Also, seeds have been planted for their growing understandings of our traditions and culture that shape our experiences of composing lives in transition. On the other side, I have been reminded of those upset stories of my little daughters in their first months at Canadian schools. My first daughter kept crying all the time after school because she could not understand her teacher's English language, nor could her teacher understand her Vietnamese. Meanwhile, my second daughter also cried as her teacher negatively criticized her reading level in the "Learning Celebration Night," in which the teacher said that my daughter's reading was at the lowest level among her peers, and that she should have been at level E instead of level C. Thinking with these two stories and also other tearful ones of my children, I have intentionally chosen both Vietnamese and English books for them. I wish not only to keep their mother tongue language but also to help them improve English language literacy.

Painting as Colorful Learning and Sharing Moments

In addition to cooking and reading, together we also co-compose a familial curriculum around and through painting. Across the generations, I have seen the love of painting spread from my grandfather's cousin, who is a countryside artist, to me, and now to my daughters. We all show deep interest in the combination of colors and shapes. With painting, my daughters can spend tons of their free time making canvases of flowers, young children, family, and natural landscapes. On snowy Sundays, we stay at home and paint the same topic. As I now think with these images and memories of these experiences alongside Joey and Sherry, I find it interesting that we tried to simulate some famous masterpieces and then compare to our three masterpieces'. Because painting requires a lot of time and effort, we sing Vietnamese songs or talk together in our home language during the painting time, which is then followed by stories about beautiful landscapes and family members in my hometown. Again, painting has contributed to shaping my children's knowledge of our great family and homeland.

Figure2. Canvas paintings by Joey, Sherry, and me, done in 2017

Retelling Stories: Forward-Looking Thoughts and Imaginings

Retelling the stories of myself as a mother living alongside children in transition to Canada has opened more space for me to understand my experiences. When revisiting my stories, I relive my experiences again and again. Sensing all of these, I am very much reminded of the extraordinary potential of living, telling, retelling, and reliving stories of experiences from Huber, Caine, Huber, and Steeves (2013):

> Throughout the ages and across cultures story continues to express the fundamental nature of humanity. Stories are not to be treated lightly as they both carry, and inspire, significant obligations and responsibilities: stories must be cared for as they are at the heart of how we make meaning of our experiences of the world. Indeed, "storytelling is about survival." (p. 214)

Here, I truly learn that stories are not simply the stories for telling and listening as I used to think before coming to comprehend narrative inquiry. Meaningfully, when coming to me with the cycle of "living, telling, retelling, reliving" (Clandinin, 2013), stories have become a teacher of mine, which can help me look backward to how I have lived in the past. This "teacher" also helps me look forward to how I will live in future. In addition, I could "see" my inward–myself—and from this, I would be able to imagine my outward—my relationship with the others, with respect to the experiences I have lived. With me, storytelling is an honest and valuable way of making sense of my lived experiences; indeed, it is about my survival, in living alongside my children when we transition to a new and strange country.

As I have been living alongside and co-composing our familial curriculum with my children, I have seen the power of cooking, reading, and painting in supporting my hope to sustain our mother tongue language, culture, and traditions for, and with, my children. It was not until I lived alongside my daughters in our transition to Canada, that I could recognize the extraordinary potential of our everyday practices, which I used to believe were simple and normal things.

Furthermore, as a "novice researcher," I realize that I always attend my stories and also-my children's stories, in relational ways. As shared in the methodology section, I employ narrative inquiry as the methodological anchor for my journey in understanding my experiences of living alongside my children in their transition to Canada. As I remember my children's and my lived and told stories, I revisit the experiences within the three-dimensional space of narrative inquiry: temporality, sociality, and place. Thinking with temporality of my autobiographies, I strongly sense that what happened in the past will shape who we are at present and shape who we are becoming in the future. When I attend my daughters' stories, I move backward and forward to understand their experiences. This movement of my thought shows me many special things related to our transition. Before the transition to this new land, we had lived together in a small house in Saigon-Vietnam, where there was very little time spent on our familial curriculum. I sense the reasons lie at two points: one point is from that our family time was for the children's heavy homework before the bed time; the other is from that we had not especially recognized the significant meaning of our home language, culture, and traditions when living in our home country. It is the presence of being in transition awakening in me the meaning of co-composing familial curriculum with my children as a way to help sustain their language, culture, and traditions. Fast-forwarding my thought to the future, I wonder what would happen if

the teachers and schools of my children see the hidden stories after their crying experiences in class. I also imagine the magic of the schools and teachers travelling back and forth among the past, present, and future in shaping their understandings toward my kids as newcomer children. It would be wonderful if they chronologically locate the cultural and traditional aspects in shaping their knowledge of newcomer children, from which they could help ease the tension, tear, and loneliness and support their development.

Thinking with sociality, I wonder a lot on the relationship between me as a mother and my children in our familial curriculum, in which we mutually negotiate and co-compose, teach and learn together, to build up knowledge and understanding on our Vietnamese language, culture, and traditions. It is obvious to see from mine and my children's experiences that together we could build up beautiful and beneficial activities in our family practice, daily and weekly. At this point, I can see that composing lives in transition could convey both challenge and beauty toward the sociality of my children. The challenge comes to my little angels as they are newcomer students having suffered lots of tear and loneliness due to the miscommunication in English language with their teachers and classmates. The beauty comes from their closer relationship with mother thanks to more time spent on family activities, sharing conversation, and understanding each other. Further, our experiences of being in transition have raised the impact on our social relationship. Back home, we had many social interactions with relatives, friends, and communities. However, our time marked by transition to Canada gives us fewer relationships outside our home. On one hand, fewer interactions with our new society has made us feel isolated from community; on the other hand, we save time and love for family members and thus much strengthen our motherhood.

Regarding the place dimension, I think a lot on the situations of my children's learning happening inside and outside the school contexts. From my own experience, it resonates with me that we are able to build our home curriculum in our own ways. But what about the possibility for integrating such curriculum to the school curriculum? Can the school and teachers engage the children's homeland culture and family traditions to the in-school lessons and activities? Also, where do I find the voice and agency for my children in their rights of choosing the most appropriate learning styles or the one they were familiar with before moving to this new country? As I ponder these questions, I see the meaning of my children's stories in which they have somehow carried with them the spirit of their homeland. As a mother, I value their question on the meaning of my name thanks to their love and care for me and the intergenerational wisdom accompanying them to this land. As an educational researcher, I feel humble with my children's inherited identity—the love of traditional cooking, reading, and painting—with which they grow up when living in the new land of more than twelve thousand miles distance from their birthplace.

Conclusion

As I move beyond the above stories in my autobiography, I have been awakened to the possibilities of unpacking the experiences of my daughters as newcomer children and my experiences as a mother living alongside them. In particular, I see the attentive necessity of recognizing ways of being, knowing, and remembering in our lived, told, retold, and relived experiences of composing lives in transition. My forward-looking thoughts and imaginings shape four meaningful points. The first one is shifting from merely focusing on dominant stories of children learning at school, to including related ways of learning at home, in which parents and

children collaborate in their curriculum making. It is obvious that understanding how children learn at home will absolutely benefit the schools' and teachers' ways of supporting newcomer children. They could, for example, design the specific learning activities based on these children' favourite learning styles or scaffold the children's development based on their identity. Doing so will help ease their tensions when first coming to new schools in a new country. The second point is that mothers could build familial curriculum for their children through a wide range of learning activities such as family intergenerational story-telling, bed time reading, cooking, painting, singing, and so on. The third point is to acknowledge the powerful role of intimate relationships: children learn best within the support from parents, grandparents, and siblings. These intimate relationships are a truly valuable support as parents are the ones who know their children's learning preferences at best. Within this paper, I emphasize the roles of mothers but not the fathers because in Vietnamese culture, men usually work outside the home, in society for earning money to raise the whole family, whereas, women are responsible for "making home" educating the children and taking care of the housework. Last but not least, understanding on children's experiences of learning at home could not only help maximize their learning opportunities but also help sustain the value of their home language, culture, and traditions.

Indeed, I imagine a place where teachers and parents can sit together for more integrating of ideas on classroom lessons, homework tasks, extracurricular activities, and other aspects related to the children's mother tongues, cultures, and traditions. Practically, this imagined place will help teachers and schools show their appreciation to the newcomer children's identity in their life making. It also creates a possible assistance for teachers to know more deeply who the newcomer children are and whether they have disabilities in English language learning, adapting to the new culture, and many other facets. Teachers' knowledge on these aspects will give them ways to scaffold the children's knowledge development appropriately and effectively. Eventually, co-creating curriculum between families and schools could facilitate the diversity, equity and inclusion in education for every single newcomer student.

As I inquire into my experiences as a mother living alongside children who are composing lives in transition to Canada, I gradually make the invisible experiences of my children as newcomers at schools become visible. By traveling into their "worlds" inside and outside school landscapes, I could attend to their experiences more deeply than ever before. With the modest knowledge of a newcomer mother, I am not confident to be the pedagogical agent of my children, but I have tried my best with all my love, to make the unfamiliar everyday practices become familiar and beneficial in our home curriculum. Learning the relational ethics of narrative inquiry has given me the bravery to share stories of my children and myself. I hope that sharing experiences of a newcomer mother like me could bridge the gap in understanding between the two worlds of children's curriculum making: familial and school. I feel profound gratitude to share the wisdom of what a mother knows of her children's lives to help shape culturally informed educational policies, programs, and practices in welcoming and supporting newcomer children. These perspectives, therefore, meaningfully counter what has become dominant story, and suggest alternatives that represent different realities, knowledges, and approaches in education.

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Exploring Teachers' Experiences of Participating in Teacher Inquiry as Professional Learning

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Abstract

Teacher inquiry is the intentional and methodical reflection on one's praxis that leads to action, and the resulting adjustments to one's teaching practice. While scholars identify the importance of supports to be in place to sustain engagement in teacher inquiry, the specifics of the supports have remained somewhat unidentified, and there is little documentation about what teachers experience as they engage in teacher inquiry as part of a school-wide professional learning initiative. This paper explores the experiences of three middle school teachers participating in a year-long, guided teacher inquiry as part of a school's professional learning plans. It is approached from an ethnographic, emic perspective. The challenges and supports teachers experienced when engaging in the inquiry process, as well as what they felt allowed honest dialogue, emerged as important aspects informing the results of this study. Participants identified that feeling safe influenced their ability to engage in teacher inquiry, and their willingness to address challenges associated with conducting research.

Keywords: teacher inquiry; teachers as researchers; school-based professional learning

Exploring Teachers' Experiences of Participating in Teacher Inquiry as Professional Learning

Teacher inquiry is the intentional and methodical reflection on one's praxis that leads to action, resulting in adjustments to one's teaching practice (Fichtman Dana & Yendol-Hoppey, 2014; Stenhouse, 1981). Teachers inquiring into the effectiveness of their own practice to improve teaching and learning has been called action research, practitioner research, teacher research, classroom research, collaborative inquiry, critical inquiry, self-study, and teacher inquiry (Esposito & Smith, 2006; Fichtman Dana & Yendol-Hoppey, 2014; Roulston, Legette, Deloach, & Pitman, 2005). This practice has been widely researched, with benefits being identified by multiple authors. For example, scholars have found that teacher inquiry empowers teachers because they are encouraged to be autonomous in their practice (Castle, 2006; Espositio & Smith, 2006; Lankshear & Knobel, 2004), and to see it as continuous professional learning designed by their own efforts (Ellis & Castle, 2010; Hulburt & Knotts, 2012; Navaneedhan, 2011; Timperley, Parr, & Bertanees, 2009). Zeichner (2003) argued this process can result in teachers feeling a renewed feeling of professionalism, while others have found teacher inquiry can positively impact classroom instruction and learning (Ermeling, 2009; Jao & McDougall, 2015) and provide intellectual satisfaction to those who engage in it (Cochran-Smith & Lytle, 1992).

Teacher inquiry has also been found to help teachers become more reflective (Limbrick, Buchanan, Goodwin, & Schwarcz, 2010), become more invested in the development of curriculum (Borg, 2010), and become more independent problem solvers (Simon, 2015); all of which may inform beneficial changes to teacher praxis (Harrison, 2013). Because teacher inquiry has also been found to build teacher confidence and to renew excitement for teaching (Zeichner, 2003), it is positioned by many as rewarding professional learning (Timperley et al., 2009).

Conversely, teacher inquiry, like many professional learning initiatives, also faces challenges, such as finding time for the practice to be taken up (Mitton-Kükner, 2015a, 2015b; Zeichner, 2003), and feeling safe to share and collaborate in honest ways about teaching practices (Kelly & Cherkowski, 2015). While scholars identify the importance of supports (Cooper & Cowie, 2010) and trust (Hallam, Smith, Hite, Hite, & Wilcox, 2015) to be in place to sustain engagement in teacher inquiry, the specifics of the supports have remained somewhat unidentified, and there is little documentation about what teachers experience as they engage in teacher inquiry as part of a school-wide professional learning initiative.

The underlying purpose of this ethnographic study was to gain insight into the experiences of middle school teachers experiencing year-long, guided and supported teacher inquiry as professional learning. The exploration was grounded in the following primary question: What are the experiences of middle-school teachers participating in a year-long teacher inquiry as part of a school's professional learning plans? This question had three related sub-questions:

1. What supports, if any, benefit teacher researchers?
2. What challenges, if any, do teacher researchers encounter?
3. What, if anything, allows teacher researchers to engage in honest dialogue about inquiry into their personal teaching practice?

In what follows, we explore the challenges and supports teachers experienced as novice researchers, discussing factors that participants identified as supportive for their engagement in teacher inquiry. Prior to this, we provide an overview of the benefits, criticisms and constraints of teacher inquiry, followed by the theoretical framework and methodological design of the study.

Teacher Inquiry: Benefits, Criticisms, and Constraints

Teacher inquiry can be a means of fostering understanding of teaching practices and pedagogy (Ellis & Castle, 2010; Hulburt & Knotts, 2012; Navaneedhan, 2011; Timperley et al., 2009) with the potential of informing long-term professional learning in how results may be shared amongst teachers within school contexts as way to build local knowledge (Lytle & Cochran-Smith, 1992; Zeichner, 2003). Scholars note the benefits of teacher inquiry in that it has been found to inform instructional improvements (Ermeling, 2009; Jao & McDougall, 2015; Limbrick et al., 2010) that are cyclic, continuous (Ellis & Castle, 2010; Navaneedhan, 2011), and learner-centered (Zeichner, 2003). This is especially true when teacher inquiries are based on student need (Timperley et al., 2009). In addition, some scholars connect the potential of teacher inquiry to the understanding of other practices currently popular in the teaching profession, including differentiated instruction, response to intervention (Fichtman Dana & Yendol-Hoppey, 2014), data-driven decision making (Fichtman Dana & Yendol-Hoppey, 2014; Simon, 2015), professional learning communities (Birenbaum, Kimron, & Shilton, 2011; Birenbaum, Kimron, Shilton, & Shahaf-Barzilay, 2009; Cooper & Cowie, 2010), and teacher professional growth (Latta & Kim, 2010; Limbrick et al., 2010).

Scholars also argue that ongoing teacher inquiry can lead to educational reform by aligning research, teacher practice, and student learning so the changes taking place are based on students and their learning in the classroom setting (Cochran-Smith & Boston College Evidence Team, 2009; Cochran-Smith & Lytle, 1992; Darling-Hammond & McLaughlin, 1995). The research indicates that conducting research benefits seasoned teachers (Borg, 2010; Butt & Shams, 2013;) by fostering a renewed sense of professionalism (Timperley et al., 2009) and autonomy of practice (Castle, 2006). While the benefits to teacher inquiry seem substantial, it is not without its criticisms or challenges.

Traditionally, educational research has been conducted by academics from outside of school settings. The credibility of teacher inquiry is often challenged due to the assumption of bias in the study of one's own teaching practices (Stenhouse, 1981). Some scholars argue that the evidence gathered is without rigor and questionable in how it is analyzed (Borg, 2010). This statement has grounds because teachers are most often not trained as researchers (Stenhouse, 1981). Borg (2010) proposed that the use of a systematic process of collaboration and rigor is well-suited to enhancing the validity associated with teacher inquiry. Even with these considerations, scholars concede that teacher inquiry is different from formalized academic research and does not necessarily align with university research and its culture (Cochran-Smith & Lytle, 2009).

Compounding the criticisms against teacher inquiry are the everyday constraints that limit teachers from engaging in ongoing research of their practice. Scholars note how a lack of time is a recurring factor that limits teacher engagement in research inquiry (Cochran-Smith & Boston College Evidence Team, 2009; Cochran-Smith & Lytle, 1992; Stenhouse, 1981;

Zeichner, 2003;). Many authors write about the potentiality that exists with teacher inquiry, but the complexity of the teaching profession does not necessarily provide enough time for teachers to engage in the inquiry process (Mitton-Kükner, 2013, 2014, 2015a, 2015b). Sufficient time for an in-depth look at one's practice is important, if teacher inquiry is to be effective (Zeichner, 2003).

Theoretical Framework

To better understand the experiences of teachers as they engaged in inquiry, three interrelated notions were drawn upon as data was collected and analyzed throughout the study: Constructivism (Applefield, Huber, & Moallem, 2001), cognitive dissonance (Patton, Parker, & Neutzling, 2012), and inquiry as stance (Cochran-Smith & Lytle, 2009). Constructivism, as a theory of learning, fostered our understanding of teacher participants' experiences from a cultural, situated viewpoint (Applefield et al., 2001), and was well-suited to the focus, design, and analysis of an ethnographic approach. As our primary focus was upon participants' research experiences, how they constructed meaning about the inquiry process, and how their understanding informed their classroom practices, a constructivist worldview enabled us to consider the participants as active creators of their own understanding. Engaging participants in interviews over the course of our research study, as they themselves engaged in research, was an important constructivist element underlying the design of the study because it enabled participants to reflect upon their experiences and make sense of what was being learned. Furthermore, constructivist learning theory enabled us to identify what collaborative supports ensured teacher participants engaged in the professional learning, by considering what they emphasized in ongoing ways.

Also conceptually informing the study was the understanding that teacher inquiry aims to push teachers into a place of cognitive dissonance, so they see the need to make incremental changes to their practices (Patton et al., 2012). This kind of learning is an active process because it requires teachers to assess an aspect of their practice to decide what needs to be done in attempt to improve. With this in mind, it was important to establish trust throughout the study; participants needed to feel comfortable to openly and honestly engage in disequilibrium for the purpose of learning (Nelson, Deuel, Slavit, & Kennedy, 2010).

Finally, the notion, *inquiry as stance* (Cochran-Smith & Lytle, 2009) was a critical idea honing our thinking about participants' experiences. Cochran-Smith and Lytle (2009) described inquiry as stance as a holistic way of approaching the profession of teaching, through continuously experimenting with and inquiring into pedagogy, resulting in the "blurring of theory and practice" (p. 3). This idea is rooted in the phenomenon the study aimed to understand, that is, exploring how teacher inquiry may be sustained and embedded as a professional learning practice as a means to build local and relevant knowledge (Cochran-Smith & Lytle, 2009). This shift is only possible when teachers are trusted to determine their professional learning needs, rather than being told their professional learning needs (Lytle & Cochran-Smith, 1992). While the scope of this study is limited, attention was paid to whether the practice of teacher inquiry spread beyond what individual teachers identified as changes to their own practice.

Methodology and Methods

Qualitative research aims to construct understanding by exploring how others have attributed meaning to their experiences (Merriam & Tisdell, 2016). Because this study aimed to explore the

experiences of teachers engaging in professional learning around teacher inquiry, an inductive qualitative process (Merriam & Tisdell, 2016) exploring this phenomenon was well-suited to the study. Qualitative research also utilizes the researcher as the main source for data collection through richly descriptive data (Geertz, 1973; Merriam & Tisdell, 2016). Finally, qualitative studies require an inquisitive mindset that embraces ambiguity, careful observation, and an ability to interpret data over time through writing (Merriam & Tisdell, 2016). Designed as an ethnography (Hammersley, 2006; Yon, 2003) that considered the entire teacher population participating in professional learning at Eleanor's school, the study was focused on an in-depth look at the practices of three teachers. Eleanor's immersion at the site created an opportunity for a thorough look at the interactions amongst people, their interactions with outsiders, their habits, and the language used within the culture of the school (Hammersley, 2006). As a teacher in this school, Eleanor also participated in the teacher inquiry and had established relationships with the teachers who took part. While the experiences reported are not generalizable, they may provide insights for others situated in similar school settings (LeCompte & Goetz, 1982).

The study took place in the spring of 2017 in an urban Canadian middle-school in a western province of approximately 750 students and 30 teachers. All of the teachers on staff participated in year-long teacher inquiries as part of the school's professional learning series. In the school, formative assessment and professional learning communities were ongoing expectations and teachers were viewed as designers of learning experiences through continuous curriculum development based on provincial programs of study.

For the year-long professional learning series in the school, teachers were responsible for intentional reflection on their practice, collaborating on what had been done, and gathering and analyzing data as they tried out something new in their classrooms. Three teacher participants, Jade, Morgan and Elijah,[1] took part in the study between the months of March and May, 2017. While the teacher participants were not followed for the duration of the year-long professional learning series, they were asked questions about their experiences that were based on the entire school year. At the time of the study, Jade and Morgan had been teaching for approximately ten years, and Elijah was in his third year of teaching. Participants volunteered for the study and were full-time teachers with whom Eleanor had established working relationships. They were diverse in their pedagogy, personal experiences, and backgrounds.

Data Collection

The data collected for this study consisted of interviews, teacher generated artifacts representing the personal inquiries of teachers who participated in the study and in-school observations. This triangulation of data from interviews, observations, and artifacts allowed for comparison and inferencing of commonalities (Hammersley, 2006; LeCompte & Goetz, 1982; Merriam & Tisdell, 2016; Pierides, 2010).

Interviews

Teacher participants were interviewed three times in 2017, once in March, and twice in May (beginning and end of the month). Interviews were semi-structured (Merriam & Tisdell, 2016) and individually conducted. Merriam and Tisdell (2016) emphasize that a semi-structured interview allows the researcher to acknowledge the ways in which participants define their world in unique ways, and while important issues are to be discussed, the wording of questions are flexible and live in response to the conversation and relationship between participant and

researcher. A semi-structured interview provided flexibility and opportunity for unexpected dialogue during the interviews. The March interviews established a baseline of understanding regarding participants' teacher inquiry experiences. Final interviews took place after teacher inquiries had concluded, which provided opportunity for the whole process to be described, and to allow for participants to note any change or growth in their teaching practices.

Artifacts

Personal artifacts from teacher participants' inquiries were the second data source. Since the study explored the experiences of teachers participating in year-long teacher inquiry work, the ongoing artifacts they generated for their inquiries were readily available for mining (Merriam & Tisdell, 2016; Wilson & Chaddha, 2010). Participant artifacts consisted of the teacher professional growth plans as maintained online. In these online workspaces, teachers self-identified a goal in October, and then reflected on their progress towards this goal by looking at the evidence of student learning that resulted from adjustments to their teaching practices. Updates on their progress were documented on their online workspaces in February and May, creating a total of nine participant entries. While this documentation did not divulge much regarding the experiences of teachers, which was the focus of the study, digital documentation did act as a verification of what teachers described as their successes and struggles with the teacher inquiry process.

Observations

Given the research problem and the ethnographic nature of the study, observation was a useful part of the data collection. Participant observation is central to the methodology of an ethnography (Hammersley, 2006) because ethnographies are rooted in immersion in the culture (Delamont & Atkinson, 1980) for descriptive observation and interpretation. Over the three-month period there were a total of 27 entries in which teacher responses to the teacher inquiry process were documented by Eleanor; particular attention was paid to what supported participants' efforts to engage in the teacher inquiry process, and the constraints they also experienced.

Data Analysis

Important to the data analysis process of this study were the efforts made to inductively analyze data as it was collected. Inductive analysis is an important aspect of qualitative research in that the timing and integration of analysis with ongoing data collection methods and decision making processes distinguishes it from traditional, positivistic research (Merriam & Tisdell, 2016).

Open codes played a significant role, as data was sifted through and notes were maintained about information that could be significant (Merriam & Tisdell, 2016). Open codes were identified between each set of interviews, by underlining and circling words that indicated recurring patterns across interviews and field notes. By grouping open codes together based on identified commonalities, axial codes, or themes, emerged during latter interpretation stages (Merriam & Tisdell, 2016). When open coding of initial data was underway, axial codes were formed, which created categories that acknowledged themes in the data by providing titles that inferred and united the open codes. These axial codes were created with consideration of context, what was understood and believed to be true about each of the participants, and the observational data. Inductive analysis that took place between the first and second interviews, as well as

between the second and third interviews, influenced the second and third sets of interview questions respectively. In both cases, additional questions were developed as a result of coding, to solicit further detail about the data that was being generated. In addition, inclusion of "devil's advocate" questions (Merriam & Tisdell, 2016) in the final interview acted as a form of member check to ensure that the ideas participants identified were being interpreted in the way they had intended.

Findings: The Importance of School Leaders and Colleagues in Fostering Teacher Inquiry

Overall, participants felt they developed their practice regardless of whether there was a school-wide teacher inquiry initiative or not. Participants believed in the importance of continuously inquiring into their practices and growing as professionals. Sharing the results of their ongoing inquiries with others, however, was identified as dependent upon an environment that fostered such participation. All participants felt that fostering authentic engagement in the inquiry process required someone to lead the process. They also felt that if leaders were honest in sharing their successes and failures, those wary of the teacher inquiry process could learn from a leader's example. This kind of leadership, they felt, might set an example for other teachers, creating a sense of safety since someone was adopting the idea first. Leading by example, participants explained, had the potential to show other teachers that it was okay to take calculated risks within one's practice, make mistakes, and learn from them. This showing of vulnerability, seemingly, for participants, could enhance trust and positively influence teachers to engage in teacher inquiry. When teacher participants felt safe and supported in their practice, they described being more likely to take informed risks within their practice, being more willing to share their results, positive or negative, and being more affable to the idea of engaging in real conversation about how they might adjust their practice for greater success. Participants identified that sharing their teaching practice experiences with their colleagues, combined with the emphasis of ongoing dialogue as part of their teacher inquiries, seemed a key piece of what they did to move their research and learning forward. Participants indicated that they were most comfortable doing this with colleagues whom they felt they could trust. In what follows, the importance of relationships with school leaders and with colleagues will be discussed to demonstrate why participants felt these were critical for sustaining the practice of teacher inquiry.

Theme One: School Leaders' Communication of Expectations and Intent for Teacher Inquiry

Participants indicated that leaders play an extremely important role in making teacher inquiry possible as an ongoing, shared, school-wide practice. For teacher inquiry as professional learning to become a part of the school culture, participants identified that clear communication of expectations as well as communication of the intention underlying the decision to take up teacher inquiry to the staff was necessary.

As expressed in the first interview, participants had some shared understandings about teacher inquiry, though all described a desire for further clarification from those leading the initiative. For example, Elijah said,

> Teacher inquiry [shows] how you are as a teacher, going through the process of your pedagogy, so that you are, in a sense, controlling the direction of where you're going…and being open to the possibilities. Inquiry…is looking for ways of…challenging and putting

> yourself in uncomfortable situations that are going to give you different ways of seeing your practice. (Interview 1, March 22, 2017)

Similarly, Jade said that teacher inquiry was, "identifying my areas for growth, finding strategies and collaborating with others to address those areas for growth, and actually driving my practice and my improvement on my own, with some support if I need it" (Interview 1, March 21, 2017). Like Elijah, she viewed it as an independent process of reflection and growth. When Morgan was asked what teacher inquiry meant to her, she responded by saying, "I think it's similar to student inquiry, it's guiding your own teaching based on…what you're interested in, kind of" (Interview 1, March 23, 2017). Unlike Jade and Elijah, Morgan seemed less confident when asked to define teacher inquiry. Later in that interview, when asked to describe her teacher inquiry experiences thus far in the school year, she provided some insight as to why she might not have been confident in defining teacher inquiry. Morgan explained,

> I don't know that it's been outlined…and communicated as well as it could have been. Sometimes when we get together with our PLCs we're like, "okay, what are we really supposed to be doing?" … I don't know that there's necessarily…been that strong communication of what does it look like and what should we be doing.

Morgan's statements clarify why she might have been confused as she used the terms PLC (professional learning community) and teacher inquiry synonymously. She recognized that she had a muddled understanding when she stated that expectations were not clearly outlined or communicated.

While Jade seemed confident in what teacher inquiry was, she did identify that she would have preferred more structure, similar to Morgan. While Morgan seemed to find that clear expectations were lacking, Jade said she felt that it was the vision that was lacking. Both Jade and Elijah connected the lack of a shared vision to the different messages schools constantly received. Jade stated,

> I'm just wondering…the different jargon that comes up through education, and sometimes it's the same concept rephrased or renamed. I just feel like it's so time specific, but when we look at things like assessment, task design, maybe a classroom environment or classroom culture, those to me are more timeless and should be the end goal for schools and boards, as opposed to what's the latest buzz word. (Interview 3, May 30, 2017)

Elijah said, "It also felt as though this process [teacher inquiry] is being used to justify other stakeholders as opposed to the interest of the teacher or the growth of the teacher. And so, it didn't feel genuine" (Interview 3, May 31, 2017). In these statements, both Jade and Elijah connected a lack of clear vision about teacher inquiry to the mixed messages they received from school board directives, many of which, they felt, were disconnected from the daily work of teachers in a school. Further, participants seemed to feel that teacher inquiry was taken up for reasons other than teacher growth and student learning; because of this, they did not feel that genuine engagement was fostered.

Theme Two: School Leaders Need to Foster Honest Dialogue by Sharing their Own Attempts

Participants felt that an administration and school leadership team who also engaged in the practice of teacher inquiry, aiming to learn and improve in their own roles, had the potential to

regulate the practice across a school. Teachers might share their personal experiences to a wider audience, participants identified, if they felt safe to make mistakes. If these were the professional learning conditions fostered by the school leadership, participants explained, it could help embed teacher inquiry as part of a school's culture. They felt that feeling safe to make mistakes could be fostered by administration if they also put themselves out there and engaged and reported on their own teacher inquiries. In doing so, participants felt, this might normalize risk-taking and learning from mistakes as part of the teacher inquiry process. For example, in reference to taking risks, Jade felt honest conversation was needed, describing how she saw her own leadership role in the past when she was a teacher learning leader of a group. She said,

> As a leader, I put myself out there. I did have comfort [be]cause I was with…grade team partners and I knew them really well. The other two [members] I didn't know as well, but because I had that one or two safe zone[s], it gave me encouragement, plus I think the title of leader, it (almost) forced me; it made me realize that if I don't put myself out there, then other people are not going to feel comfortable. (Interview 3, May 30, 2017)

In her statements, Jade alluded to the idea that beginning the process of teacher inquiry required making one's self vulnerable. She also referenced her personal need to do this with people who she felt safe around. When leaders put themselves out there, Jade explained, they lead by example, and this, in turn, might help to create a safe space for others to take risks.

While the idea of leaders putting themselves out there was recurring with all participants, it seemed to be connected to the need for honest dialogue as part of professional growth. When asked whether honest dialogue was necessary for true growth, Elijah responded by saying, "You can't move unless people are honest" (Interview 3, May 31, 2017). When asked how this might be fostered in a school, he implied that leadership was at the heart of this matter and said, "I think it goes back to that culture of it's not failure, it's just re-adjusting" (Interview 3, May 31, 2017). Here Elijah connected one's ability to honestly inquire into personal practice to one's ability to take risks within their practice. Elijah seemed to feel that when the school culture is one that supported adjustment and the making of mistakes, teachers might be more willing to engage in teacher inquiry.

Likewise, Morgan said she thought, "If you're being a leader and having honest dialogue then other people will want to follow" (Interview 3, May 31, 2017). When asked how honest dialogue could be promoted in a school, she felt, "It needs to be supported somewhat" (Interview 3, May 31, 2017), though she also recognized that any teacher could promote it. Elijah shared the same sentiment; when asked about how to foster a culture of honesty he said, "It starts from someone stepping up" (Interview 3, May 31, 2017), but he felt that it was best fostered when it came from administration. In an earlier interview he said, "I feel it's creating a culture where everyone recognizes we're all growing in this" and "I think it starts from the top" (Interview 2, May 1, 2017). When asked what he felt the top would need to do, he said "Live it" (Interview 2, May 1, 2017). Like the other participants, Elijah indicated that leadership was important for the teacher inquiry process to be regular and authentic.

Jade also connected the ideas of honesty and learning from experiencing failure. When asked if she felt honest dialogue was necessary for true growth, she said, "We learn more from our mistakes [more] than from our successes, and if you're not honest about where you need to

grow, then how are you going to get better?" (Interview 3, May 30, 2017). When asked how this could be fostered in a school setting, she said,

> [You] lead by example, right? …like if you're a leader and you're not willing to put yourself out there, then why should other people do it? I think that presence goes a long way. I don't think it's the be-all and end-all, but I think it's a good start. Just because I'm not a leader in the school, doesn't mean I can't take the first step either. But it's hard in a school. I think it does start from the top though. (Interview 3, May 30, 2017)

In this instance, Jade, like Elijah, indicated the leadership in a school needed to live the practice, and lead by example to create a safe space for others to engage in the inquiry process as well. Morgan was also on the same page when it came to the importance of honest dialogue. She said, "If you are not being honest, if you are not discussing where you're at with your teaching, then you're not going to further yourself" (Interview 3, May 31, 2017). This, however, could be a difficult process to engage in, as Elijah indicated that, at times, "I didn't want to look like I didn't know how to do it" (Interview 3, May 31, 2017), in reference to challenges he had with his own teacher inquiry.

Theme Three: School Leaders Influencing Teacher Willingness to Engage in Risk Taking through Teacher Inquiry

Participants identified the importance of risk-taking as part of professional learning and attributed a willingness to engage in such efforts through their teacher inquiries. They were mindful that taking risks could mean failure but felt if honest dialogue with others was happening, much could be learned. When asked about the role of risk-taking and failure, Morgan said, "I think that you need to kind of think outside the box and put your career and your teaching and your learning first, and take control of that" (Interview 3, May 31, 2017). She also said, "Everything we kind of do is failure, but that's what you learn from. So, if you take a risk and it fails, then you know [learning can still happen]" (Interview 3, May 31, 2017).

When asked about risk taking, Jade stated,

> If you don't take risks and own up to mistakes…then how do you know how to improve, right? You really have to put yourself out there to say, "I tried this, this is where I didn't quite meet my own expectations, or this is where I failed"…just even talking through your process, I think you can learn a lot more than just kind of focusing on the positives all the time. (Interview 3, May 30, 2017)

Here, Jade connected the idea of taking risks to failure, and learning from one's mistakes. She also acknowledged the importance of dialogue with colleagues. These ideas seem tied to honest dialogue because, as previously discussed, a feeling of safety is required for teachers to engage in taking risks, making mistakes, and discussing them in an honest way. For the participants, the role of school leaders in creating this kind of safe environment is not to be underestimated.

Finally, Elijah was also in agreement that taking risks and learning from failure were critical components of teacher inquiry. He said, "You can't grow without, like we've been talking about, setbacks. And risks are going into an unknown where you don't know what the outcome is, and that should actually be sought out" (Interview 2, May 31, 2017). For Elijah, when teachers can learn from failure through their practice, they are more likely to improve their practice at an accelerated rate. Again, this idea of taking risks and learning from failure is

supported when teachers feel safe to do so, as though making a mistake isn't wrong, but rather, encouraged. Participants emphasized that when teachers see leaders practicing this process of risk taking and learning, they are more likely to feel safe to engage in the process as well.

Discussion: The Role of School Leadership in Fostering Positive Conditions for Teacher Inquiry

All of the participants indicated that feeling safe to inquire into one's teaching practices was best fostered by school administrators and the teacher leadership team. Creating safety for participants meant school leaders had to establish trust through clear communication of expectations as a way of showing their understanding and value of the teacher inquiry process. As described by the participants, a healthy dynamic between school leaders and teachers may be created when they lead by example and engage in this process as well. The presence of participant affect underlies the study's findings. The idea of affect influencing participants' responses to teacher inquiry is reminiscent of the work of Kelly and Cherkowski's (2015), who found that looking after the affective needs of teachers is necessary, so that they can move forward in their professional learning.

Hallam et al. (2015) emphasized the importance of teams of teachers taking the time to work together so trust can be built within a professional learning community. Like Hallam et al. (2015), participants in this study clearly indicated the importance of feeling trusted by the leaders of this process, specifically, their administration. Participants felt that in order to authentically engage in the process of teacher inquiry (i.e. by taking risks and engaging in honest dialogue about their practices), they needed to feel the school leadership viewed them as trustworthy. In addition to the emphasis on trust, participants identified that leaders needed to understand, believe, and practice teacher inquiry themselves, as their actions helped trust to flourish. This seems an important factor informing engagement in the teacher inquiry process, and other scholars have noted similar findings. For example, Nelson et al. (2010) wrote of the importance of teacher leaders facilitating deep conversations in PLCs, while Ermeling (2009) found that instructional improvements are more likely to occur when the teacher inquiry process is led by qualified leaders. Like these researchers, participants in this study also identified that someone qualified needed to lead the process as a way to facilitate quality sharing and conversation, as well as quality personal reflection. The role of the facilitator is a crucial one for teacher inquiry to be adopted effectively, as use of a protocol and time for conversation alone do not guarantee deep and meaningful dialogue (Nelson et al., 2010).

Facilitator beliefs and actions are also closely linked (Patton et al., 2012) to the successful implementation of teacher inquiry. A facilitator, such as a school administrator or a teacher leader, needs to recognize what each participating teacher arrives with, and that learning is an active and social process (Patton et al., 2012). Building trust and credibility is necessary (Patton et al., 2012) for any effective professional learning, especially since learning from failure plays a role in successful teacher inquiry (Simon, 2015), aligning with the findings of this ethnography. Establishing this trust and credibility may aid the facilitator in moving professional dialogue from a place of congeniality[2] to collegiality,[33] "from sharing to inquiry" so that teacher inquirers "approach conflict as an intellectual challenge rather than an affective or emotional event" and move towards "deeper inquiry and professional learning as opposed to threats to professional identity" (Nelson et al., 2010, pp. 176-177). This effective facilitation of learning requires authentic working relationships based on trust and honesty. Increased trust has the potential to

allow for more openness with sharing of strategies and student data, by de-privatizing practice (Hallam et al., 2015), and supporting teacher inquiry as professional learning.

Although Cooper and Cowie (2010) identify that sustaining teacher inquiry and PLC. engagement require external support as well as the importance of emotional, social, and intellectual supports, they failed to identify these specific supports. Likewise, Hallam et al. (2015) recognize the importance of trust in effective professional learning communities but continue to question the specifics about how it is developed and the strategies that are used to build it in a school setting. Similarly, how teacher inquiry can be diffused throughout a system, and how assessment to inform decisions can be sustained as an intentional daily practice, remain unknown (Zeichner, 2003).

This study aimed to explore the experiences of middle-school teachers participating in school-wide, mandatory, year-long, guided and supported teacher inquiry, to gain insight into the specifics of what may support or hinder teacher participation in sustaining inquiry as a stance. For the participants of this study, school administration and leadership played an incredibly important role in creating and sustaining the professional learning conditions for teachers to engage in the effort, risks, and honest dialogue needed for their inquiries. This perception of trust seemed connected to how teachers felt, and how teachers felt influenced their engagement in teacher inquiry. This study suggests that sustaining inquiry as stance (Cochran-Smith & Lytle, 2009) may be supported by school leadership if trust is first established. Participants felt that clearly communicated expectations, an explained vision for the process, and administrators and school leaders engaging in and sharing their own teacher inquiries have the potential to support the practice. Such conditions may create safe spaces for teachers to take risks by inquiring into their teaching practices and to honestly share successes and failures with colleagues. At the end of the study we acknowledge the complexity of sustaining teacher inquiry as a professional learning practice, particularly as participants identified that there was always something new to take up, and never enough time.

Concluding Thoughts

The role of administration and leaders within a school community cannot be underestimated in establishing the necessary trust needed for teachers to engage in teacher inquiry. Participants indicated that they were interested in engaging in the teacher inquiry process but needed to feel trusted by their administration as well as their colleagues to do so. Establishing trust in multiple ways seems necessary for teacher inquiry, so teachers can authentically engage in the process. Participants felt that administrators held the power to make this happen, particularly if they lead by example. Trust amongst colleagues is also important, so that sharing in honest dialogue and risk-taking may inform a school professional learning culture that embraces inquiry as stance (Cochran-Smith & Lytle, 2009).

[1] All names are pseudonyms.

[2] Congeniality refers to the ability of people to work with each other in a friendly manner, though does not ensure achievement of goals or growth of practice

[3] Collegiality refers to the ability of people to willingly work with each other towards a common goal, through ongoing dialogue and growth of practice.

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Early Career Teachers' Experiences of Communicating with Families via Technology: Educatively Dwelling in Tension

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Abstract

A variety of online programs, apps, and digital learning management systems currently "provide teachers with a means to more easily communicate and share information with students and parents through discussion forums, social media, videoconferencing, email, grade books, and announcements" (Howell & O'Donnell, 2017, p.28). While technology is often seen as shaping positive shifts in teachers' and schools' abilities to communicate with families, we, the five co-researchers in the study *Understanding the Interactions Between Early Career Teachers and Families,* wondered how early career teachers were experiencing the use of technology to interact with families. During semi-structured interviews with each of the 20 teacher participants, we were awakened, for example, to tensions experienced by many of the teachers when expectations to communicate with families electronically conflicted with their longings for more relational and reciprocal interactions. Yet, we also came to see that the teachers were learning to dwell in these tensions in ways that opened potential for educative (Dewey, 1938) growth and movement toward the kinds of interactions with families they were imagining. This paper takes up technology as one of the resonant threads drawn from and across the teachers' storied experiences, and inquires narratively into the kinds of generative tensions that many of the teachers were experiencing and drawing on as they imagined increased relational and reciprocal ways of interacting with families, and then moves to wonder how dwelling in these tensions might shape preservice and in-service teacher education.

Keywords: Early career teachers; families; technology; interactions; agency

Early Career Teachers' Experiences of Communicating with Families via Technology: Educatively Dwelling in Tension Beginning in Experience

You have updates, report cards, there's so much documentation
and so much time put on the computer
that it's been difficult to make the phone calls,
make the continuous, constant connections.
(Interview with Mrs. Lee[1])

I'll get emails at 10 o'clock at night, I'll get emails on the weekend, I'll get emails all the time.
A lot of the teachers at our school are younger
and a lot of them don't have children and
they have a very different perspective on things.
I find if I talk to them they think I'm crazy anyways.
They think I'm crazy that I communicate that much with parents.
(Interview with Dawn)

Technology wise, I've been using ContactsSchool,[2]
although I've looked at my stats of parents
who are actually using ContactsSchool and it's extremely low.
I guess it's because we have such a high ESL population,
maybe they don't have access to computers,
but I stopped using ContactsSchool now because I realized no one's reading it.
So I have gone back to handing out newsletters in paper
to parents at the beginning of the month
with a calendar of all of our important dates,
and then in their agendas I have labels or stickers because the kids can't write,
just updating them of what's going on in the classroom.
(Interview with Sandra)

The above fragments of experience were shared by three of the 20 urban teachers of Kindergarten to Grade 6 who participated in the study, *Interactions Between Early Career Teachers and Families* (Huber, Reid, Farmer, Desrocher, & McKenzie-Robblee, 2017). As co-researchers for this study, we began the inquiry carrying multiple wonders shaped by our own experiences interacting with teachers and families as mothers, grandmothers, daughters, graduate students, teachers, a principal, teacher educators, and researchers. Our shared wonder about the situations in which teachers learn to interact with families became the focus of the study, in part because both our lived experiences and the literature review we completed at the study's onset, seemed to indicate that interactions between teachers and families is not presently a focus of most preservice teacher education programs.

We designed the study's semi-structured interview protocol to draw forward situations, across time and place, in personal and professional contexts that shape and reshape the knowledge teachers draw on as they interact with families, and to learn how teachers' experiences in these situations shape and reshape their interactions with families. Each of the 20 participants were invited to the study through various means:[3] some through personal contacts, others through the network sustained at the Research Issues Table at the University of Alberta,

some through letters of invitation sent through the school divisions' main offices, and others yet through information letters sent to principals. The one to two hour-long interviews were recorded and transcribed, and after being reviewed by the teachers for accuracy, we began a year-long process of reading and rereading the transcripts and engaging in weekly research conversations.

Our thoughts returned to our recently completed study when we read *in education*'s call for articles for its special edition on teacher education and teaching. As we began to imagine a new inquiry into the teachers' storied experiences. Mrs. Lee's, Dawn's, and Sandra's experiences seemed to particularly resonate with the theme of *in education*'s special edition, especially in relation with the sub-topics: "Teacher education: preservice, in-service, and professional development [and] Critical concerns related to teaching and learning, for example, ethical relationships." While this thread wove through and between many of the teachers' stories, we chose to foreground Mrs. Lee's, Dawn's, and Sandra's experiences as they made visible their tensions in relation with digital platforms and communication technologies, which they each storied as having the potential to support their interactions with families, but that each also storied as potential barriers to the more relational and reciprocal interactions with families that they were striving and/or longing for.

Sandra, for example, wondered about the division-wide digital learning platform she had been mandated to use by her employing school division, which she learned was not meeting the needs of the families with whom she was in relation. Mrs. Lee expressed tension-filled wonders about the amount of time that was needed to maintain and update the mandated digital learning platform in her school division, which left her little time to interact with families in ways she imagined would be more relational. For Dawn, whose digital interactions with families were extensive, the pervasiveness of technology, which made her accessible to families at all times, was a source of tension in her relationships with colleagues, particularly when her colleagues had different views of how often and when to communicate with families via technology.

In this article, we inquire into wonders and tensions that arose for Mrs. Lee, Dawn, and Sandra in relation with their technology mediated interactions with families. We think *narratively*[4] with their stories to open spaces to further wonder about ways in which the tensions they experienced shaped, and reshaped, their teacher identities, senses of agency, teaching practices, and understandings of reciprocal, ethical relationships with families. We close the article by imagining ways in which spaces may be opened teacher education that support preservice teachers, teacher educators, in-service teachers, and those responsible for shaping professional development, to inquire into tensions educatively (Dewey, 1938) and to imagine the potential of such an opening for shaping interactions.

Situating the Chapter

For the initial study we undertook an extensive literature review to situate our work in an already complex landscape. In this section, we will draw on small pieces of the vast literatures with which we engaged in relation with relationships, communication, and technology in schools, and then we will move to situate this chapter theoretically.

Awakening to the Complexities of Fostering Relationships Through Communication, and Technology

Drawing toward relationships. Miller Marsh and Turner-Vorbeck (2010) published *(Mis)Understanding Families: Learning from Real Families in Our Schools*, in which they noted the scarcity of research attentive to examining "representations of families in schools" (p. 1), and the need for critical examination of "representations of families and appl[ying] that information to forging stronger, more successful relationships among families and educators" (p. 1). And yet, in a one-time survey of 127 early career teachers in the New York area, Horne (2010) found that "many beginning teachers report struggling in building relationships and communicating with parents" (p. 20).

Kim et al.'s (2012) review of numerous studies showed the need to be clear about ways language may shape interactions between teachers and families. Foregrounded in Kim et al.'s work is an emphasis on the need for family-school partnership models, which they understand as emerging in the research literature in response to "the limitations associated with unidimensional (school *or* home) or unidirectional (school *to* home) models" (p. 3). For Kim et al., family-school partnership models enhance "the bidirectional relationship between families and schools" (p. 4), and draw attention to "relational components . . . [such as] creating a welcoming school environment" (p. 7).

In addition to Kim et al. (2012), Reschly and Christenson (2012) emphasize a systems-ecological orientation to interactions between teachers and families as "partnerships require engaged relationships between families and educators" (p. 65), in order to "systematically remove barriers between families and educators by ensuring an ongoing process to identify and recommend constructive suggestions for improvement in the family-school interface rather than assigning blame" (p. 68). In an earlier review of family-school partnerships, Christenson (2004) highlighted how "trust building between home and school often runs counter to practices in schools where quick and efficient solutions are sought" (p. 96), and that "in many circumstances, efficiency is valued over the interaction process that requires time to build trusting relationships and get to know one another" (p. 96).

Hadley (2012), wanting to understand the kinds of experiences valued by families and staff in five day care settings in Australia, surveyed 58 families and 22 staff with the results showing that "although schools now invite families in, the ideology has not changed" (p. 39); that is, staff in schools, which also includes day care settings, are still positioned as "informing" families about school programming.

Klassen-Endrizzi and Smith (2004) foregrounded the difference between teachers "talking with parents" (p. 330) and teachers "talking *at* parents" (p. 330) in ways that supported more relational interactions. They noted that in their study "parents heard for perhaps the first time how teachers valued their years of learning with their child" (p. 330). Also noted, however, were complexities of "finding the time and energy to engage in these discussions" (p. 330). Klassen-Endrizzi and Smith (2004) closed their article with the recommendation that "teachers have a responsibility to start talking with the public by inviting families into discussions about learning. Parents are vital constituents many teachers overlook" (p. 332).

What we gradually came to understand in lingering in the literature was that although relationship-building with families has become a stated goal, the ways in which trust and

relationship are sought, formed, and sustained are woven with complexities. In order to wonder further with these complexities, we then moved to wonder with *how* teachers, schools, parents, and families interact.

Lingering with the complexities of communication and technology. While digital platforms and communication technologies are often presented as potentially beneficial in communicating with parents, Keller (2008) wondered about the impact of their use on teacher workload. She writes about one school district in particular where the teachers' union developed "rules for email" (p. 15) as a way to support teachers in response to the increase in time and in response to teachers who were feeling bullied by parents via these platforms. Based on all of this, Keller recommended that early in the school year clear expectations be established for parents in relation with teacher and/or school communication. Also suggested was the development of web sites to communicate information with parents.

Thompson, Mazer, and Flood Grady (2015) examined the technological modes of communication parents choose to communicate with teachers, as well as if parents use different modes for differing kinds of communication. They found that "smartphones have affected how parents and teachers communicate, suggesting that parents view academic support and new communication technologies as important to their child's education" (Thompson, Mazer, & Flood Grady, 2015, p. 202). While most parents in the study reported preferring email communication instead of modes such as texting, they noted the nature and complexity of the issue at the center of the communication should shape the choice of type of communication. In this article, aspects such as timeliness, accuracy, accountability, and accessibility were cited as reasons for the increasing the parents' preference for email communication.

Additionally, Jackson (2013) argued for technological "tools" to engage and bring families "into" the classroom in virtual ways. Recognizing the opportunity that technological platforms afford teachers (and children, and thus by extension parents and families) which they have not had in the past, Jackson suggested blogs and Twitter as "outreach" (p. 68) mechanisms for "digital family engagement" (p. 69).

This brief sketch of the research landscape supported us in our wondering deeply with the stories shared with us by the participants, in relation to how these early-career teachers experienced interacting with parents and families via a variety of digital platforms, and drew us to wanting to think narratively with the stories and wonders they had foregrounded for us.

Thinking Narratively

Though the original study in which Mrs. Lee, Dawn, and Sandra participated was not a narrative inquiry, the co-researchers carefully designed the semi-structured interview protocol to be attentive to what Connelly and Clandinin (2006) identify as the "commonplaces of narrative inquiry," (p. 479) which are temporality, sociality, and place. When describing the commonplace of temporality, they noted that "events … under study are in temporal transition. Narrative inquirers do not describe an event, person, or object as such, but rather describe them with a past, a present, and a future" (p. 479). As narrative inquirers also attend to sociality, they attend to both personal conditions, as well as social conditions:

> By personal conditions we mean the feelings, hopes, desires, aesthetic reactions, and moral dispositions of the person.… By social conditions we mean the existential

> conditions, the environment, surrounding factors and forces, people and otherwise, that form the individual's context" (Connelly & Clandinin, 2006, p. 480).

Place, as another commonplace of inquiring narratively, refers to "the specific concrete, physical, and topological boundaries of place where the inquiry and events take place. The key to this commonplace is the importance of recognizing that all events take place some place" (p. 481).

Clandinin and Connelly (2000) first conceptualized and described the "metaphorical *three-dimensional narrative inquiry space*" (p. 50) that is shaped through attending to the commonplaces of narrative inquiry, and they named this process "thinking narratively" (p. 34). We, as co-researchers in the study, additionally drew on Morris' (2002) understanding of *thinking with stories*:

> The concept of thinking with stories is meant to oppose and modify (not replace) the institutionalized Western practice of thinking about stories. Thinking about stories conceives of narrative as an object. Thinking with stories is a process in which we as thinkers do not so much work on narrative . . . [but allow] narrative to work on us. (p. 196)

To think and inquire narratively, then, in our understanding was to allow the stories to work on us within the metaphorical "three-dimensional narrative inquiry space… with the directions this space allows our inquiries to travel - inward, outward, backward, forward, and situated within place" (Clandinin & Connelly, 2000, p. 49). Clandinin and Connelly (2000) described these four directions as follows:

> By inward, we mean toward the internal conditions, such as feelings, hopes, aesthetic reactions, and moral dispositions. By outward, we mean toward the existential conditions, that is, the environment. By backward and forward, we refer to temporality - past, present and future. (p. 50)

Thinking narratively is a way of engaging with lived and told stories, that serve "as a starting point for exploring the many other stories that live in and around … [them] and make up a life" (Downey & Clandinin, 2010, p. 389). Furthermore,

> To inquire narratively is to focus on experience as stories lived and told with an understanding that uncertainty lives in and between the situations or lived and told stories. Concretely this means focusing *out* from any one situation to see peripherally the many other situations that compose a life (Bateson 1994). The process of looking across the many stories that compose a life fosters its own form of unexpectedness, one brought on by seeing not only how we have gone about composing a life, but also how we might now go about composing it differently. (Downey & Clandinin, 2010, p. 390)

As we returned to Mrs. Lee's, Dawn's, and Sandra's transcripts we did so thinking narratively, attending to the stories they shared of making their lives in and outside of schools, prior to, during, and following their preservice teacher education. Doing so, invited us to attend to how each had and is composing her life, and the multiple experiences each drew on as she interacted with, as she imagined future interactions with, families.

Narratively Inquiring Into Tensions

As we became immersed in our inquiry, we found theoretical grounding in Clandinin and Connelly's (1995) conceptualization of teachers' professional knowledge landscapes, which they described as having "two different epistemological and moral places: in-classroom and out-of-classroom places" (p.14). Within this context:

> In-classroom places are described as safe places where teachers live out their personal practical knowledge (Connelly & Clandinin, 1988), that is, their stories of who they are and who they are becoming as they interact with children. Out-of-classroom places are described as prescriptive, professional places shared with other teachers where teachers are expected to hold certain, expert knowledge shaped by policies, theories, and research, and given to them through dominant stories of school. (Clandinin, Murphy, Huber, & Orr, 2010, p. 82)

As Clandinin, Connelly, and others continued to inquire into teachers' professional knowledge landscapes, attention turned to the tensions experienced by teachers as they navigated in and between the in-classroom and out-of-classroom places on their *professional knowledge landscapes* (Clandinin & Connelly, 1995, 1998, 2000; Clandinin et al., 2006; Clandinin, Murphy, Huber, & Orr, 2010). By thinking with the research literature alongside excerpts from the interview transcripts with Mrs. Lee, Dawn, and Sandra, we began to sense that their tensions often emerged as they crossed the boundaries between in- and out-of-classroom places. We noted, for example, that the reciprocal, relational relationships with families that the teachers were striving for in their in-classroom places sometimes bumped against division-wide policies prescribed in their out-of-classroom places, which mandated the use of specific digital learning platforms.

Our inquiry was additionally supported by the metaphor of the *conduit*, conceptualized by Clandinin and Connelly (1995) to represent the unidirectional transmission of knowledge into schools, packaged in the form of policies, instructional programs, staff meetings, workshops, and the like. According to Clandinin and Connelly (1995), this knowledge is typically "prepositional, relational among concepts, impersonal, situation-independent, objective, nontemporal, ahistoric, and generic" (p. 15), and moreover, "nothing comes through the conduit as merely theoretical knowledge to be known and understood; it always comes as an implied prescription for teachers' actions" (p. 14). There is little dispute that tensions arise for teachers as they carry knowledge from the conduit to their in-classroom places, where its implied prescriptions for their actions often bump against the teachers' knowledge and understandings of the children, youth, and families they are alongside in any given school year. While these tensions are often left unexplored, we sense it is profoundly pedagogical, as well as educative, to inquire into tensions experienced by Mrs. Lee, Dawn, and Sandra as they interacted with families in their in-classroom places using communication technologies that had been mandated in their out-of-classroom places. As Clandinin et al. (2010), state:

> For many teachers, and indeed for many people, tensions are thought to have a negative valence, that is, tensions are something to be avoided or smoothed over. If there are tensions evident in a school it is usually seen as a problem… Gradually, we began to understand tensions in a more relational way, that is, tensions that live between people,

> events, or things, and are a way of creating a between space, a space which can exist in educative ways. (p. 82)

The Danger of a Single Story

While some research literature attends to the tensions that communication technology raises for teachers, other research literature attends to ways the variety of online programs, applications, and digital learning management systems currently available to teachers enhances their ability to interact with children, youth, and families. Despite the multiple perspectives presented in the research, over the course of our conversations with each other as co-researchers, we came to sense there is a pervasive societal and institutional story that the use of digital platforms and communication technologies is an effective way to enhance interactions between teachers and families because they "provide teachers with a means to more easily communicate and share information with students and parents through discussion forums, social media, videoconferencing, email, grade books, and announcements" (Howell & O'Donnell, 2017, p. 28). Our conversations were often drawn to wonder with our sense of the pervasiveness of this story of digital platforms and communication technologies as "making things better."

During these conversations we were reminded of Adichie's (2009) TedTalk, "The Danger of a Single Story," and her observation that "the single story creates stereotypes, and the problem with stereotypes is not that they are untrue, but that they are incomplete. They make one story become the only story" (para. 42). The danger of a single story, according to Adichie, is that it "flattens" experience by overlooking the many other stories that make up a person or a place. As we thought with Adichie's TedTalk alongside the stories Mrs. Lee, Dawn, and Sandra had told of their technology-mediated interactions with families, we were awakened to the multiplicity and complexity of their experiences, and to how their experiences could be flattened by a possible single story of technology as good. We were, however, also mindful to not begin composing a different single story as we attended closely to the multiplicity and complexity of Mrs. Lee's, Dawn's, and Sandra's experiences.

Dwelling in the Tensions of Stories of Experience

As we wondered how to represent some of the stories of experience shared by Mrs. Lee, Dawn, and Sandra, which at times appeared across multiple pages or reappeared in differing places in their transcripts, we were inspired by Butler-Kisber's (2002) practice of drawing on "the words of the participant(s) to create a poetic rendition of a story," particularly when "bits and pieces…[are] scattered over" (p. 232) or across a transcript. We have chosen to use found poems (Butler-Kisber, 2002; Richardson, 1997), composed from words spoken by Mrs. Lee, Dawn, and Sandra throughout this chapter. As we composed and as we read, and reread, these found poems, Richardson's (1997) sense that found poems have the ability to "re-create lived experience and evoke emotional response" (p. 521), and Butler-Kisber's (2002) sense that found poems can "be a way of representing holistically what might otherwise go unnoticed" (p. 235) deeply resonate with us. The following poetic renditions make visible some of the tensions that arose for Mrs. Lee, Dawn, and Sandra, and they supported us to narratively inquire into the teachers' experiences of tension.

Tensions of Time

You have updates, report cards, there's so much documentation
and so much time put on the computer
that it's been difficult to make the phone calls,
make the continuous, constant connections.
Currently, my interactions (with families)
will happen at the beginning of the day
when the odd parent drops off their child.
Secondly, I do emailing with certain parents,
we're connecting just to try to keep behaviour on task
and just to keep the child accountable.
And then thirdly, we keep in contact through ContactsSchool.
We do our newsletters on ContactsSchool, our homework is all on ContactsSchool.

I will give celebrations on ContactsSchool,
certificates so parents know how their children are doing
within our spelling program or our reading program
or when their child does something awesome.
I feel like I've had a good connection with families
but not a great connection and that concerns me.
It's the technology part of it that concerns me.
It's just I wish we had more day-to-day interaction with families.

At the time of her interview, Mrs. Lee was returning to teaching after 14 years of being a stay-at-home mom with three children. As she shared childhood memories of interactions between her teachers and her mother, Mrs. Lee seemed to awaken to a sense that "I am who I am because of where I was coming from.". Mrs. Lee remembered her mother being highly and respectfully engaged in interactions with her teachers as she advocated for her daughter throughout Mrs. Lee's schooling. We sensed these memories drew Mrs. Lee's thoughts not only in a backward direction but also in forward and inward directions, toward memories of interactions she had had with her own children's teachers and schools. Mrs. Lee shared feelings of disconnectedness with her children's schools and teachers, and she shared tensions she was particularly experiencing in relation with her oldest daughter's high school because "everything is done by computer." We wondered how Mrs. Lee's childhood experiences and her experiences as a mother interacting with her children's teachers shaped the tensions she was presently feeling in relation with the interactions and connections she had with the families she was alongside as a teacher.

Mrs. Lee vividly remembered her first year of teaching and fondly recalled becoming very close with the families. As we read stories in Mrs. Lee's transcript about the many families who attended her wedding, we began to sense the importance of relationships to Mrs. Lee. We also sensed her tension with ways that teachers presently interacted with families compared with ways teachers interacted with families when she first began teaching 14 years earlier. She shared, for example, that her present interactions with families were rarely face-to-face now that few parents dropped off or picked up their children from school, and those who did were met by locked doors due to school safety policies. Mrs. Lee described email as some parents' main mode of communication, but how, as a teacher in a high needs Grade 2 classroom, she had tensions with email because it created a response-time expectation that she could not meet. She also expressed a desire to give her personal cell phone number to families, which would facilitate

more in-time communication with them via text messages, but worried about possible repercussions. Although Mrs. Lee shared that she prefers telephone conversations with families because they are a more relational and reciprocal form of communication, she also experienced tensions with them, which she believed would be less acute with face-to-face interactions. She associated these tensions to English language barriers faced by many of the families who are newcomers to Canada and, additionally, she has learned that many of the families have past negative experiences of phone calls from school.

It was not difficult for us to sense connections between Mrs. Lee's deep desire for relational ways of being alongside families and her diverse experiences of interactions between families and teachers across time, place, relationships, and situations. We sensed the experiences which shaped and reshaped Mrs. Lee's desire for reciprocal and relation interactions with families also shaped her tensions with the use of technology to interact with families. We sensed she was agentically seeking ways to interact relationally with families by using the division's mandated digital learning platform, but in ways to celebrate children's successes at school, but she was feeling like this was not enough to facilitate and nurture the kinds of reciprocal relationships she was longing to have with families. While Mrs. Lee storied that she worried that these digital interactions were actually barriers to the more personal, relational, and reciprocal interactions she wanted to have with families because they were so time consuming.

Expectation and Collegial Tensions

It took me a long time to get my BEd degree;
it took me almost 10 years to finish it off
and so my youngest child when he was in Grade 4
had a teacher who emailed me every day,
emailed me what he had for homework and
I loved it. Absolutely loved it.
And that was something that was a real eye opener to me
'cause he knew I physically couldn't get into the school, couldn't pick up my son,
I couldn't talk to him and I couldn't touch base and he made that effort.
I've had families come back to me after their child has moved on and say
"You know, we appreciate the communication."
And I say, "I get it. I get it from a parent's point of view.
You have to work, that's just the way things are,
but you love your kid and you still want to be involved,
and that what I try to do. I try to bridge that gap."
I'll get emails at 10 o'clock at night, I'll get emails on the weekend, I'll get emails all the time.
A lot of the teachers at our school are younger
and a lot of them don't have children and
they have a very different perspective on things.
I find if I talk to them, they think I'm crazy anyways.
They think I'm crazy that I communicate that much with parents.
(Interview with Dawn)

At the time of her interview, Dawn was teaching Grade 1 at a school she described as "80% families who have immigrated to Canada." Dawn was in the fifth year of her teaching career, and before that she had worked as an educational assistant in public schools and with a program called Getting Ready for Inclusion Together, in which she worked with children living

with multiple disabilities in their homes. Dawn shared stories of how these experiences had taught her the importance of communicating clearly and openly with families, and she additionally acknowledged ways her experiences as a foster parent, participating in training sessions and interacting with biological families, taught her the importance of respectful and non-judgmental communication. It was, however, Dawn's remembered experiences of completing her Bachelor of Education degree while her three children were in elementary school that most significantly shaped her commitment to interact with families who do not and/or cannot come to the school for face-to-face interactions. This commitment is visible in Dawn's practice of extensively communicating with families via email and with a blog and photo sharing site that she shares with the other Grade 1 teacher at her school. As Dawn's found poem illustrates, she understands from her own experiences as a preservice teacher with school-age children, that not all parents are able to come to school to have conversations with their child's teacher. She credited her son's Grade 4 teacher with teaching her that even when a child's family members cannot interact with her in person, she can still have meaningful communication with them via email and other communication technologies.

Dawn mindfully uses email to pass on information to families in ways that facilitate interaction not only between herself and family members, but also between the children she teaches and their family members. She described, for example, sending a weekly mass email with information about the upcoming week; a Friday email to each family with the weekly sight words their child read correctly and ideas that might help them with the ones they are still learning; a mass email at the beginning of every 6-week unit explaining to families what their child will be learning and areas where they can support their child; and end of day emails, when appropriate, to share a photograph or something exciting that happened at school to generate conversation at home. Dawn saw communication technologies as having the potential to build bridges between children's lives at school and their lives at home with their families, and she hoped these bridges could support meaningful and relational interactions between children and their parents. We saw in Dawn's interview transcript many examples of the relational ways she lived her teaching practice alongside both children and families, including her invitation to families to email her any day and time with questions and/or concerns and her commitment to respond in time to their emails. We sense Dawn's used email not just to communicate with families, but also to co-build relationships with them.

Dawn's positive experiences alongside her son's Grade 4 teacher, who had sent her daily emails, planted the seeds for her commitment to regularly reach out to families through email. Then, as a teacher interacting with families, Dawn had experienced their expressions of appreciation for her regular and meaningful email communication with them, and this seems to have further strengthened her commitment. Although the technology-mediated interactions between Dawn and families are not, themselves, sources of tension in Dawn's storied experiences, tensions did surface when Dawn was asked if and how her school's culture and her colleagues supported her to interact with families. While Dawn was not critical of her colleagues, she noted that they did not communicate with families as often and as much as she did, and they questioned why she invested so much time and energy into emailing families. She noted, in particular, that her colleagues seemed to have tension in relation with her practice of emailing with families at any hour, when many of them did not respond to emails from families after 5:00 pm. Given that Dawn taught Grade 1, we wonder if some of her colleagues were concerned that as children move on to their classrooms in subsequent grade, they will not be able to maintain the

same level of communication that families have become accustomed to with Dawn. As teachers come to their teaching practices with different experiences, different values and priorities, different demands on their time, and different knowledge and skills in relation with communication technologies, we continued to wonder with our understandings of the tensions between and among teaching colleagues that might surface.

Tensions Around Professional Agency

Technology-wise, I've been using ContactsSchool,
although I've looked at my stats of parents
who are actually using ContactsSchool and it's extremely low.
I guess it's because we have such a high ESL population.
I stopped using ContactsSchool now because I realized no one's reading it.
So I have gone back to handing out newsletters in paper
to parents at the beginning of the month
with a calendar of all of our important dates,
and then in their agendas I have labels or stickers because the kids can't write,
just updating them of what's going on in the classroom.

I've started texting with some parents,
which I didn't mean to do, it just happened by chance.
One of them is a very supportive family,
the mom just wants to have updates, and it's easy for me to text
and it's just how that worked.
So that's kind of new technology for me, too.
It's the first year I've given my phone number out.
I might regret it later.
We'll see.
(Interview with Sandra)

At the time of her interview, Sandra had been teaching for three-and-a-half years at the elementary level, and was both a Kindergarten teacher and the ESL lead teacher in her school. Early in her interview transcript, we noted how Sandra's childhood experiences alongside parents who were learning English seemed to shape the empathy she presently carried for families at her school who were newcomers to Canada. She recalled how her parents would have liked to be volunteers on class field trips or be involved in her school's parent council, but they both needed full-time jobs to support Sandra and her three sisters, and how they also felt that their English was not good enough. We wondered how Sandra, as a child, perceived her parents' lack of interaction at her school, and if she felt somewhat protective of her parents, who she knew cared deeply about her and her sisters' education even though they did not have a presence in their school. We also wondered how her teachers might have interpreted her parents' absence from the school landscape. This wonder emerged as we thought with Sandra's more recent stories of her interactions, as a teacher, with parents of children in her class who are learning English as adults, as her parents had. In these stories, Sandra shared how she mindfully looks for roles and volunteer activities for parents who are just learning English, and how "finding them different places in the school to get involved is the first step of making them realize that they're welcome here" (Interview with Sandra).

We were particularly drawn to Sandra's decision to no longer use the digital learning platform prescribed by her employing school division to communicate with the families she was alongside for that school year. Sandra knew that the families were not using ContactSchool, and she imagined it was because they did not have access to the internet and/or their English language skills were a barrier to understanding the posted information. Similar to Mrs. Lee, Sandra experienced tension around the amount of time it took for her to keep the mandated digital learning platform updated for her class, and this tension increased when Sandra learned that the families were not reading the information. We sensed, however, that Sandra's desire for reciprocal and relational interactions with families and her realization that ContactsSchool was not supporting those relationships, was also a significant source of tension. We were moved by the agency that Sandra exercised to switch to paper newsletters and calendars that made use of symbols which parents could understand when they were not yet able to read English. Sandra mindfully chose, in her in-classroom place, to interact with families in ways that differed from policies mandated in her out-of-classroom places, and we wonder how her sense of agency might have been shaped by her childhood experiences. We sense both her childhood experiences and her experiences as an ESL lead teacher in her school have supported Sandra's understandings of the wholeness lives, and of ways diverse lives can sometimes bump against dominant school narratives.

Sandra's story of her decision to share her personal cell phone number with some parents surfaced another school narrative, which created tension for her as she crossed the boundaries between her in- and out-of-classroom places. Throughout her interview, Sandra wondered about the metaphorical line between professional and unprofessional behaviour in the teaching profession. Sandra remembered, for example, the tensions that emerged for her when she was invited by families to attend social events, such as a child's birthday party, and how she wanted to go for the child and family, but was worried that her colleagues might consider her attendance unprofessional. In a similar way, she worried about the sharing of her personal cell phone number with the parents of the some of the children in her class. While Sandra understood this sharing to be part of a relational way of being alongside families who preferred to communicate via text messaging, she also worried that she might "regret it". Sandra has helped us to further wonder how teachers' interactions with families are shaped by narratives of what constitutes professional behavior, and what those narrative might shape for teachers, like Sandra, who choose to dwell in the midst of the tensions that often arise when they reach for more reciprocal and ethical relationships with families.

Resonant Threads: Weaving Tension and Possibility

When Mrs. Lee, Dawn, and Sandra were asked to describe ways they presently interact with families via technology, they shared stories of using emails, texts, digital learning management systems, blogs, videos, and a variety of social media platforms. As their thoughts lingered with these experiences, their stories began to include multilayered and situationally diverse complexities and tensions, many of which we sensed arose as they crossed the boundaries between their in- and out-of-classroom places. While some of their stories highlighted the fact that technology enabled increased accessibility between families and teachers, other stories highlighted their tensions at feeling expected to respond promptly to electronic communications both during and beyond the school day or, in Dawn's case, feeling judged by colleagues who thought she responded too promptly. In lingering with these complexities, we began to wonder how teachers' and families' interactions with each other, both with and without the use of

technology, might be shaped if preservice, in-service teachers, children, parents, and families were invited into the conversations that shape the policy and program development that school divisions enact.

Institutional Narratives and Engagement

Dwelling in the midst of these tensions, we returned to wonder with, what we had come to sense is, a dominant institutional narrative that technology improves communication and positively shapes interactions between teachers and families. We also wondered about the educative (Dewey, 1938) possibilities that might be opened up when relational interactions between schools, teachers, and families are drawn upon to shape the use of technology, as we noted in Sandra's story. These wonders brought us to consider who has typically shaped the decisions made as to which digital platforms are privileged, how those decisions get translated to teachers via the metaphorical conduit in relation with how these platforms are to be used, and which are not to be used. What might be possible if the conduit was inverted? What if children, parents, and family members were to be called upon as knowledge-holders with whom to collaborate and from whom to learn? What if children and families felt agentic in shaping the conversation around communication and interactions with teachers? What if teachers felt agentic in deciding what best supports their interactions with the children and families they are alongside? We wondered about the educative potential of such an inversion of the conduit, and the possibilities such collaborative decision and policy making might open.

These wonders drew us toward literatures that also wondered with the inclusion (or exclusion) of parental/ familial knowledge in shaping the interactions schools and teachers have (or are not having) with families. For example, drawing on experiences in a project focused on parent knowledge and engagement, Pushor and Ruitenberg (2005, with co-researchers) distinguished between the terms "parental involvement" and "parental engagement" by noting how "participation . . . implies that parents actually . . . have a right to be included, whereas someone who is involved is there by invitation" (p. 6). Seeing "parental involvement" as "activities in which parents are invited to serve the school's agenda, to do the things educators deem important" (p. 6), Pushor and Ruitenberg (2005) conceptualized "parental engagement" as parents taking a "place alongside educators in the schooling of their children, fitting together their knowledge of children, teaching and learning, with teachers' knowledge" (pp. 12-13). Parent engagement, then, can be understood as opening possibility "for the structure of schooling to be flattened, power and authority to be shared by educators and parents and the agenda being served to be mutually determined and mutually beneficial" (Pushor & Ruitenberg, 2005, pp. 12-13). We continue to wonder how much or how often communication via digital platforms is information-driven, with the intention of one-way communication of information, dates, events, etc. *to* parents and families, which would resonate with Pushor and Ruitenberg's sense of *involvement*, and we also continue to wonder with how digital platforms might be understood as ways to shape *engagement* in Pushor and Ruitenberg's understanding.

Lingering Wonders

As we continue to think with the teachers' stories, which foregrounded the tensions in the "single story" (Adiche, 2009) of communication technology as a singular solution to communicating/interacting with families, we came to wonder about the connections with teacher education, both preservice and in-service. We came to wonder about the opportunities for inquiry

that the semi-structured interviews opened in which the beginning teachers shared how they were awakening to their interactions with families as also having been profoundly shaped by their personal experiences as youth, and for some as parents themselves. We now wonder about the possibilities that might be opened in preservice and in-service teacher education if there were places and spaces to support similar inquiry, awakenings, and knowing. We wonder about the opportunities in pre- and in-service teacher education for careful consideration of the nested complexities of communication via digital means. We wonder about the opening of spaces for conversations about and around digital communication platforms and the agency teachers, children, youth, and families have in those decisions, and again how shaping spaces and places in teacher education to begin to wonder with preservice teachers' experiences narratively might support teachers to think more deeply with these complexities.

Our literature review foregrounded not only the draw toward increased reciprocal and relational interactions with parents and families in schools, which was widely supported by the participants in our study, but also the complexities that surface in relation with communication, engagement, involvement, and technology. We sense that much more work is needed to support preservice and in-service teacher education programs to engage with this wonder. Mrs. Lee, Dawn, and Sandra opened a space in which they (and we) could think with their experiences across time, places, and in a variety of situations and relationships, alongside their respective preservice teacher education programs. What we came to sense was a gap; each storied that in their pre- and in-service teacher education, digital platforms and communication technologies had not been an aspect considered in conversations connected with building relationships with parents and families.

We slowly came to sense the far-reaching possibilities of shaping places for these kinds of conversations and think kind of inquiry, grounded in experience, in teacher education. And while we wonder about the relationships teachers are imagining having and building with children and families, we also wonder about the relationships and interactions families are imagining having with teachers and schools. We also wonder, with a profound sense of possibility and awe, what might shift and change if preservice teachers, children, youth, parents, and families were drawn into these important conversations as "holder[s] and maker[s] of knowledge" (Connelly & Clandinin, 1999, p. 1). We wonder if and how they might sense that they were being encouraged to "reflect on things as if they could be otherwise" (Greene, 2001, p. 98), and if these reflections might draw closer to the reciprocal and relational interactions that Mrs. Lee, Dawn, and Sandra were imagining in their becoming as teachers.

[1] All names reflect the pseudonyms each early career teacher chose for themselves.
[2] The name of the platform has been fictionalized so as to maintain participants' anonymity
[3] The ways in which participants were invited to the study depended on each individual school district's policies.
[4] Please see the section entitled *Thinking Narratively* for a detailed description of our understanding of what thinking narratively entails.

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Trauma-Sensitive Practice for New Teacher Standards: Addressing the Epidemic of Our Times

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Abstract

In response to provincial and national calls for whole school approaches, and in the hope to support new teacher competencies aimed at promoting mental health, this paper considers the changing dynamics within the current classroom through elements and implications of a participatory study conducted in an Alberta urban elementary school. Specifics from this research with young "girls," who engaged in ritual, ceremony, arts-integrated, contemplative, and somatic practices, target the on-going conversation on mental health and best practices in schools. Images of and from their life-size body maps are imbedded into the discussion, promoting the inclusion of body-centred, emotional, and imaginal dynamics to be integrated throughout teaching and learning. The discussion calls for the conscious shift of teachers, counselors, and leaders into more integral and ecological paradigms that understand health through the multifold relations with others and the environment. This argument is supported by trauma literature that calls for affective embodied experience, greater inclusion of right hemispheric activities, relational ethics, and teacher professional learning.

Keywords: trauma; mental health; whole school approaches; ritual; ceremony; contemplative, somatic, and arts-based methods; paradigm

Trauma-Sensitive Practice for New Teacher Standards: Addressing the Epidemic of Our Times

Imagination and the body together are how children grow and heal.
~ Dennis McCarthy, 2007, "*If you turned into a monster*"

Feelings have their own kind of wisdom.
~Nancy McWilliams, 2004, *Psychoanalytic Psychotherapy: A Practitioner's Guide*

Mental Health and the Education Context

Initiatives such as *The Jack Project,* [1] "*Right By You*," *Dove Girls Self Esteem*, Bell's "*Let's Talk*," and *Teen Mental Health* seek to improve the well-being of persons particularly youth in Canada (PMH; PHAC; WHO). With suicide a leading cause of death among young Canadians, diverse initiatives and broad-sweeping mental health campaigns have been implemented (Navaneelan, n.d.). Statistics Canada (2012) reports one in five teens have expressed suicidal ideation during the year; 15-24 year olds had the highest rates of mood and identity disorders of all age groups; and about seven percent of them have identified with depression during the year (as compared to five percent of Canadians 25-65 years of age and two percent over 65 years). At higher risk for both depression and suicidal ideation are girls and young women. In fact, the rate of suicide has doubled for girls 10-14 years of age and has risen 50% for those 15-19 years of age (Olson, n.d.). Aboriginal youth, who include First Nations people living on or off reserve, and Métis and Inuit peoples die by suicide at a higher rate than settler peoples, including multi-member or cluster suicide as witnessed in recent years. Many of the mental health issues faced by Indigenous populations are rooted in historical, inter- and trans-generational trauma, economic inequalities, homelessness, discrimination (e.g. justice system), and the effects of colonization—structures and beliefs upon which systems of education and health care have been founded and are maintained.

Add to these numbers the changing ethnocultural character of Canadian classrooms and we have a unique context for which many teachers have not been well prepared. Consider the findings of the Stats Canada 2011 National Household Survey (NHS): 1.4 million people had "an Aboriginal identity" and 1.16 million "foreign-born people immigrated in Canada between 2006 and 2011" ("Immigration and Ethnocultural Diversity in Canada"; "Aboriginal Peoples in Canada: First Nations, Métis, Inuit"). These statistics on mental health and community diversity paint a particular picture of classrooms wherein teachers are charged with the mandate to not only serve students well pedagogically but also attend them "compassionately" and responsibly regarding mental health—both of which require the care, attention, and availability befitting the charge in *loco parentis* (Alberta Education, 2017; ATA, n.d.; Edmonton Public Schools, n.d.)

In response to these statistics as well as increased cases of depression, self-harm, and bullying, public schools have become recognized as ideal and necessary places to address child and adolescent mental health (Wei, Kutcher, & Leblanc, 2015; Wei, Kutcher, & Szumilas, 2011). Recently published educational guidelines integrating systems of care (Government of Alberta, 2017) and new and emerging Programs of Study (Government of British Columbia, 2019-20; Government of Ontario, 2015) have intensified the need for "whole school

approaches" (JCSH, 2008; McHale & Maidrag, 2015). According to McHale and Maidrag (2015), whole school approaches integrate social and emotional well-being into all aspects of teaching and learning, promoting behavioural skills, and empathy-based programs. Building upon Wells, Barlow, and Stewart-Brown (2003) who sought universal approaches to mental health promotion, effectiveness was found when interventions ran continuously for more than a year; they involved changes to the school climate; the changes were influence by students' voice (McHale & Maidrag, 2015); and they were aimed at the promotion of mental health as opposed to the prevention of mental illness.

Figure 1.

David Grauwiler (2018), executive director of the Alberta division of the Canadian Mental Health Association (CMHA), admits that the discussion of mental health in schools commonly shifts to "clinical interventions and the cohort of therapists, psychologists, and other helping professionals" (p. 20). While this type of work makes important contribution, "clinical supports and interventions" aid the "highest and most obvious needs" (Grauwiler, 2018, p. 20). The needs of many children and youth, with mental health problems who are not identified as vulnerable or in peril, will remain unmet and thus will not receive adequate support. Public Health Agency Canada reports that 10-20% of children and youth in Canada experience mental illness and only one in five children and youth who need mental health services receives them (CMHA, p. 9;). By 2020 the World Health Organization (WHO) predicts "depression will be the most common and disabling illness throughout the world, with early

onset primarily in adolescence" and emerging adulthood (Brains Beyond Borders, n.d.). Unaddressed mental illness impacts the development of affect regulation, attention, cognition, perception, interpersonal relationships, and often plays a deterministic role in the emergence of later problems in social functioning, pathology, and disease (De Bellis, 2010).

Traumatic Experience and its Traces

Perhaps more alarmingly, trauma expert, Bessel van der Kolk (2014) argues, trauma is the "greatest threat to our national well-being" (p. 348). Trauma is an epidemic—not only among the world's low and middle-income countries but also throughout Canada at all socioeconomic levels. Indeed, the current climate might be called a worldwide "hidden epidemic" of trauma and fear (Lanius, Vermetten, & Pain, 2010).

More explicitly, students in our schools have experienced traumatic events, including natural disasters; sudden or violent deaths of loved ones; violence at home, in the streets, community, or war; displacement and exile; via refugee or war-zone situations; terrorist incidents; as well as physical or sexual assault; motor vehicle accidents; medical/dental trauma (sudden illness/injury, emergency or medical procedure); interpersonal trauma (betrayal, abandonment, and abuse: emotional, physical and sexual); and neglect. Neglect is a more common form of trauma, yet it is not well understood. Despite child protective services' definition by law—"a significant omission in care by a caregiver, which causes or creates an imminent risk of serious physical or mental harm to a child" (De Bellis, 2010, p. 123)—neglect can occur at the hands of loving parents who are overworked and preoccupied. That is, with families decreasing in members, yet increasingly isolated and insular, parent(s)/carer(s) work longer work weeks, and in some cases suffer their own overwhelm and unattended trauma. In these situations, neglect can readily take form in the lack of supervision; failure to provide basic needs of nutrition, clothing, hygiene, and safety; and/or inadequate attention to a child's needs for affection, emotional support, or competence (De Bellis, 2010, p. 123). Trauma, neglect, and other early life stressors have adverse outcomes on cognitive and emotional development (Fisher & Gunnar, 2010; van der Kolk & d'Andrea, 2010). The number of students exposed to these kinds of encounters has increased substantially. It is unlikely that these numbers are going to diminish given world events and socio-political factors affecting current lifestyle choices.

Consistent across trauma research is the translation of trauma into explanatory terms. It is *not* the event that determines the traumatic injury (be it individual or collective) but the experience of overwhelm in relation to the event wherein there is a rupture to one's sense of subjectivity. This rupture leaves the individual's sense of self altered. *Trauma* describes any experience that causes a person unbearable psychic pain or anxiety. For an experience to be "unbearable" means that it overwhelms the usual defensive measures used to shield against outer forces (Kalsched, 1996, 2013). This description speaks to the red and black "explosion or eruption" and "churning" in both the head and the heart of this body map artist (see Figure 2). The colours red and black are the most commonly used across cultures to symbolize pain, hurt, injury, and suffering. Such experience can be personal, familial, cultural, ethnic, historical, collective—national, religious, geographic—(Erickson, 1976), intergenerational, and transgenerational (Wirtz, 2014, 2015; Wolynn, 2016, Yehuda, 2002).

Figure 2.

For this artist (Figure 2), the "emptiness" of her body map in comparison to the maps of the other participants, led her, during the last moments, to "fill" both her body and the space around it with fushia and turquoise Bingo dabber marks and small, colourful circles and hearts. Besides a stage with half-open curtains in her solar plexus, which symbolized zir safe place, these two symbols spoke volumes as they were what she felt. In total, these were the only three inkings on her body map until the reactive "filling-in."

In an aptly titled chapter, "Life after 'death'," Lombardi and Gordon (2014) offer a tangible description of what happens in an individual who experiences trauma: "At its core," they begin, trauma is "a moment that tears into the course of normative living, altering the very bounds of identity" (p. 172). They add, "Trauma breaks the frame of contextual experience and the capacity to continue narrative accounts of personal history"—a rendering which accounts for the fragmentation and dissociation that ensues. Understanding trauma as a "break, a rupture, a tear, a fracturing in the psyche," wherein "trauma atomizes one's sense of subjectivity, disturbing psychic boundaries, neurological encoding, and symbolic functioning" accounts further for breakdown in language, understanding, even the body (Lombardi & Gordon, 2014, p. 172). This shattering interferes with relation to others; it undermines belief systems that give meaning to experience; and it violates faith in a natural or divine order, casting the individual into a state of existential crisis (Herman, 2015 p. 51). If we consider the massive impact of trauma upon people—that is, upon students, teachers, and other school members—the very way we come together requires reconfiguration. If the sense of self as a whole person, along with a sense of belonging, and access to safe and trusting relations are threatened via a traumatic injury, then what we do, how we do it, and why we do it, requires radical reimagining.

Collective Experience of Trauma

Trauma can be experienced collectively as well as individually, thus becoming complex trauma. According to the 2003 annual report of the Aboriginal Healing Foundation, "Thousands of former students have come forward to reveal that physical, emotional, and sexual abuse was rampant in the school system and that little was done to stop it, to punish the abusers, or to improve conditions" (p. 16). "The fact that there were no repercussions for perpetrators of institutional abuse within this system," writes Renee Linklater (2014), author of *Decolonizing Trauma Work* "produced serious consequences for children as they learned to devalue their safety and personal boundaries and to become accustomed to living within abusive environments" (p. 43). Without any acknowledgement or responsibility taken by those within the system, it made treatment unacceptable. Additionally damaging, abusers received salaries and administrative support while committing violations (Linklater, 2014). Trauma

must be taken up systematically—discussed or pursued in public, thereby making its study legitimate and political. In so doing, it too resists the "social processes of silencing and denial" (Herman, 2015, p. 9). However, individuals within organizations, systems, and societal structures must hold "traumatic reality in consciousness" so to affirm and protect those who have suffered trauma, thus joining "victim" and "witness" in a common alliance (Herman, 2015, p. 9). Understood in this way, the report brings painful realities to light, ones which must be addressed by raising awareness, transforming attitudes, and changing behaviour of adults in schools who work with Aboriginal children and youth as well as newcomer, vulnerable, and settler populations. While educators need to become more cognizant of present trauma—the ways it presents and supportive attitudes and actions in response—we must also be intentional about past traumas, including inter- and trans-generational trauma among Indigenous peoples (see Gaywish & Mordoch, 2018).

Critically relevant to Indigenous and settler relations is the fact that unbearable and intolerable events refuse to be buried. In her potent historical analysis, *Trauma and Recovery*, Judith Herman (2015) argues, "Remembering and telling the truth about them are prerequisites both for the restoration of the social order and for the healing of individuals, families, and collectives. …The conflict between the will to deny and the will to proclaim [atrocities] is the central dialectic of psychological trauma" (p. 1). Without a witness, and a means to express and release the event, it often manifests as a symptom, disturbing multiple areas of functioning—educational, family, health, and vocational. Traumatic experiences leave traces, whether large scale—on our pasts/histories, societies/cultures, systems/structures—or close to home, on our families, our students/patients/clients, and our communities, with dark effects imperceptibly passed down through generations (see Wolynn, 2016 and Yehuda, 2002, regarding inherited family trauma). They too leave traces on our minds and emotions—impacting our learning and memory—on our capacity for joy and intimacy, even on our biology and immune systems.

New Standards, New Learning, New Paradigms

Because educators and staff members in schools today are expected to undergo professional learning to acquire skills that support child and youth mental health (Kutcher, Wei, McLuckie, & Bullock, 2013), the response requires the development of mental health resources, supports, and training for them (Wei et al., 2011). Revision to the Alberta School Act has introduced new criteria to the Teacher Quality Standards (TQS) to ensure that teachers can facilitate "response to the emotional and mental health needs of students" (Alberta Education, 2018, p. 6); demonstrate "empathy and genuine caring for others"; and support "inclusive, welcoming, caring, respectful and safe learning environments" (p. 4). The new standards will apply to teacher certification, professional development, supervision, and evaluation commencing fall 2019 so many teachers require supplementary learning to meet this mandate within the context of diverse school communities (Alberta Education, 2018).

With increasing diversification in schools, the design and implementation of mental health models cannot afford to overlook the cultural forces biasing Western conceptions of healthy functioning, and in kind, practices and systems that support "health" (LeBlanc, Talbot, & Craig, 2005; Unger, 2005; Unger et al., 2007). The allopathic medical model, for example, is based on disease hence illness, not wellness. Allopathy does not aim for optimal health, enhancement, or maintenance of wellness, nor prevention of illness. Too, it focuses on the

individual and not families or communities. In contrast, "The Mental Health Commission of Canada recommends that mental health promotion and prevention initiatives must engage communities"(Brains Without Borders, "About")—a call that is echoed by other organizations whose mission is to promote mental health(see Brains Without Borders, "About" . Similarly, psychiatry, a field that pathologizes Indigenous peoples' experiences, considered but later rejected the DSM-category for "residential school syndrome" (Chrisjohn & Sherry, 2006, cited in Linklater, 2014, p. 21). Its reliance upon DSM diagnoses adds to the stigmatization around mental health, and it "pathologizes purposeful and valuable coping strategies commonly used by people who are traumatized" (Burstow, 2005, p. 429). Helping professionals must be cautious though about rejecting psychiatric diagnoses because "doing so jeopardizes insurance coverage and compensation claims" (Burstow, 2003; 2005 cited in Linklater, 2014, p. 22) that aim to aid mental health. As such, the structures central to these systems put many in a double bind.

When we shift our frames of reference to paradigms and perspectives of health and healing that focus on "restoring balance to the self through relationship with other and the environment" (Stewart, 2007, p. 190) potentialities emerge. Health and healing, as found in Indigenous, traditional, and integral worldviews, mean mind, body, soul (personal), and spirit (creative principle). Here, not only are relationships and interconnections within a larger web of life throughout time primary, but also body is the core of inter-, intra-, and trans-personal relations and epistemologies associated with well-being and wholeness. One valuable example of this is the Cree/Algonquin/Plains Wellness-Medicine Wheel with its four-direction gestalt (also see Gaywish & Mordoch, 2018; Linklater, 2014). We must become receptive to other paradigms in order to support whole school approaches, especially ones that offer worldviews beyond both modernity and post-modernity. Neither of these historical paradigms values the predominance of relations—the energetic, subtle, and concrete—and similarly, they both ignore the ancestors, collective knowing, tradition, the unconscious, and the spiritual. To begin to imagine other images of wellness, ones that see our selves as interdependent with sky, place, and the particularities of place, are favourable because they open us to both the always already and the not-yet. This ontological and so corporeal turn cannot be bypassed. Our well-being, both individually and collectively, depends on innumerable relationships that include animals, air, gardens, vacant lots, the elderly, and community members engaged in our schools but also at all levels of community.

Figure 3.

Transdisciplinary Praxis and Somatic Awareness

Affected by these mental health realities and attendant to the emergent need to provide intercultural mental health perspectives, resources, and methods that work across cultures, I conducted a participatory poetic inquiry with eight Grade 6 girls, aged 10-11. We were guided by the following question: In what ways might girls' experiences with art-integrated activities and body-centering techniques inform educators about pedagogical practice and mental health interventions?

The study unfolded through an animated paradigm, a worldview that supports the imaginal and poetic basis of consciousness as well as an ecological sense of being. Its ontology reflects a worldview that includes and values images, intuition, feeling, the unconscious, transpersonal, transgenerational, transgender, and emergent dimensions (Fidyk, 2013, 2017, 2019). It calls forth practices and knowing inherent to pre-modernity, traditional, and Indigenous peoples: ritual, ceremony, expressive movement—such as drumming, dancing, and chanting—community healing, dreams, visions, and the ancestors to name a few.

Methods (moves) were carefully chosen and layered wherein a transdisciplinary praxis emerged. Arts-integrated practices of imagining, colouring, tracing, painting, and playing (Knowles & Cole, 2008; McNiff, 2013; van der Kolk, 2014); and body-centered techniques, such as breathing, grounding, visualizing, and moving (Rosenberg & Kitaen-Morse, 1996; Rosenberg, Rand, & Asay, 1985) were woven into practices inherent to integrated body psychodynamics: attunement, containment, boundaries, breath, and agency; and trauma studies: titration, pedulation, resonance, somatic awareness, and somatic empathy. Understanding informed by analytical psychology was both the backdrop to these moves and the guide for inclusion of active imagination and symbol amplification—so to encourage cultural inclusivity and to honour difference via body, gender, language, and spirituality (Levine, 2005/2008, 2015; Manwell et al., 2015; van der Kolk, 2014).

Though named methods, within this paradigm, each cluster is in actuality ontological. That is, each is a way of being—although not recognized as such by dominant perspectives within educational research and current Western systems (education, justice, medicine, etc.). Each move while embodied or practiced was theoretically informed. As a guiding gestalt, we explored the relationship between "girls'" images of self as depicted through their relationship to their bodies and to their sense of well-being through stories "written on the body" (Devine, 2008; Gastaldo, Magalhaes, Carrasco, & Davy, 2012; Karlsson, 2012; MacGregor, 2009; Wienand, 2006;). That is, their personal narratives, their remembrance re-imagined, became symbolic tats inked upon life-size body maps.

Ontologically shaped, this positioning reforms the guiding ethics not only in conducting research[2] but also in opening up relations within the school community and beyond. Of import are the ethics of relationality (with each other, our bodies, space, art, spirit/s, energy, and families), and "relational accountability" (requiring reciprocal and respectful relationships), thereby reflecting inter-being, empathy, humility, kinship, and care—qualities inherent to a sense of belonging to a much larger cosmos (Wilson, 2008). Such a paradigmatic shift welcomes diversity in culture, language, tradition, and science (Cajete, 2000), allowing greater complexity and potentiality in understanding and practice. It then invites increased inclusivity of students and families within our schools and communities.

Faced with the facts that girls attempt suicide and self-harm at higher rates than boys, as well as have greater percentages of incidents of trauma, girls are at higher risk for mental illness and death (Statistics Canada, 2012). Add to this the pervasive quality of social media and media culture that targets the lives of youth, where dangerous and unrealistic cultural ideals of body and beauty distort a healthy sense of well-being (Korr, 2015"Girls Body Image"; Westerberg-Jacobson, Edlund, & Ghaderi, 2010). For example, more than 50% of girls age six to eight years of age report their ideal body is thinner than their current body, and "87% of female characters age 10-17 on the most popular kids' TV shows are below average in

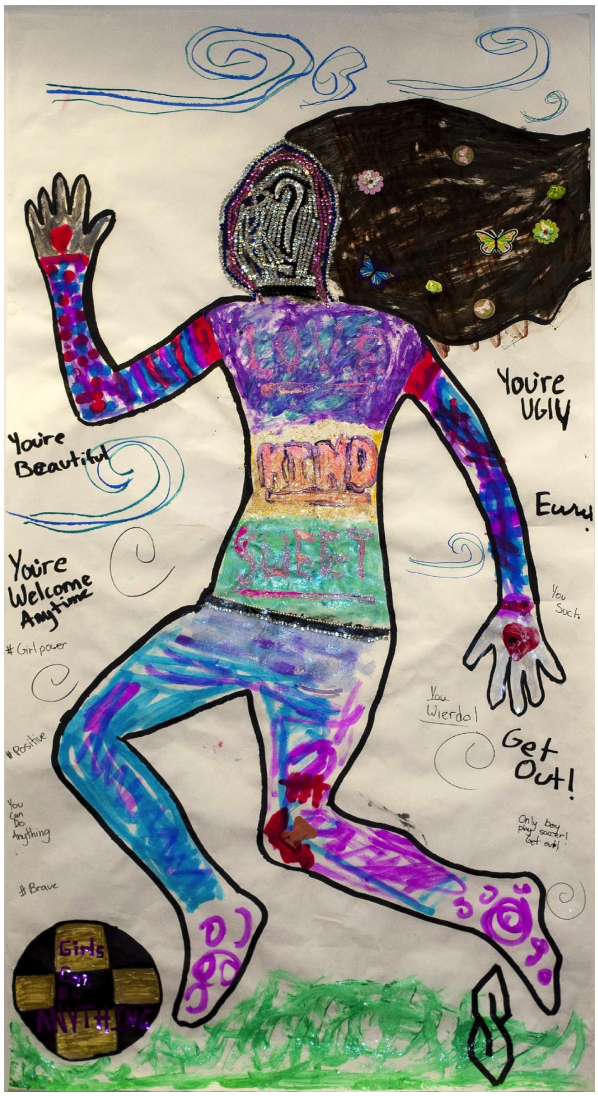

Figure 4.

weight" (Common Sense Media, "5 Ways to Promote a Healthy Body Image for Girls,"n.d.). Likewise, the harmful socializing mantra: "Be nice, sweet, and kind"—implies obedience and silence and thus lack of agency and voice. To the point, this artist (Figure 4) wrote on her torso in capital letters: "Love, Kind, Sweet." Where such socialization occurs, they most likely have not been taught that their boundaries matter, that their interiority matters—they matter. To learn that one's bodily feelings and sensations communicate from deeper levels is to trust not only one's body—and what it says—but also what one's body feels *in relation* to space and time and other. When girls (and in general children/youth) discover, they have voice, even if it is expressed as conscious silence, action, or art—as this young artist came to do—it can be used to protect themselves and what they love. Too often girls are socialized to consider others first, often at the expense of their own desires and well-being. Regardless of culture, overriding one's own safety impacts one's sense of trust and security. Research has shown that having a poor self-image is highly related to low self-esteem, affecting mental health, and in turn, learning, and social functioning (Duncan, Duncan, & Schofield, 2011).

Aware that any healthy changes that unfolded through the girls' participation needed to be supported outside of our meetings, their homeroom teachers were formally invited[3] to meet with me at the onset, mid-way, and at the end of the study to discuss their awareness of and attention to the body and the arts in learning. I was curious about their interest in reflexive practice, along with professional learning via curricular and pedagogic development regarding ways to better understand emotional and mental health needs. One of the teachers shared examples of ways students were engaged with movement and breathing practices during class. The other spoke of observations and concerns about the girl-participants but seemed reluctant to engage in real inquiry regarding pedagogic practice. It was difficult to direct their attention away from the girls and onto their teaching.

For mental health to be addressed by teachers, counsellors, and leaders, a shift in understanding human physiology is needed—that is, "*what the body remembers*" (Singh Baldwin, 1999); *what the body tells us*; and *the ways it tells us*. For example, in the pilot study and two similar studies conducted at three different school sites, with "girls" of relatively the same age (Grades 6 to 8), they consistently, and alarmingly did not give themselves anatomical

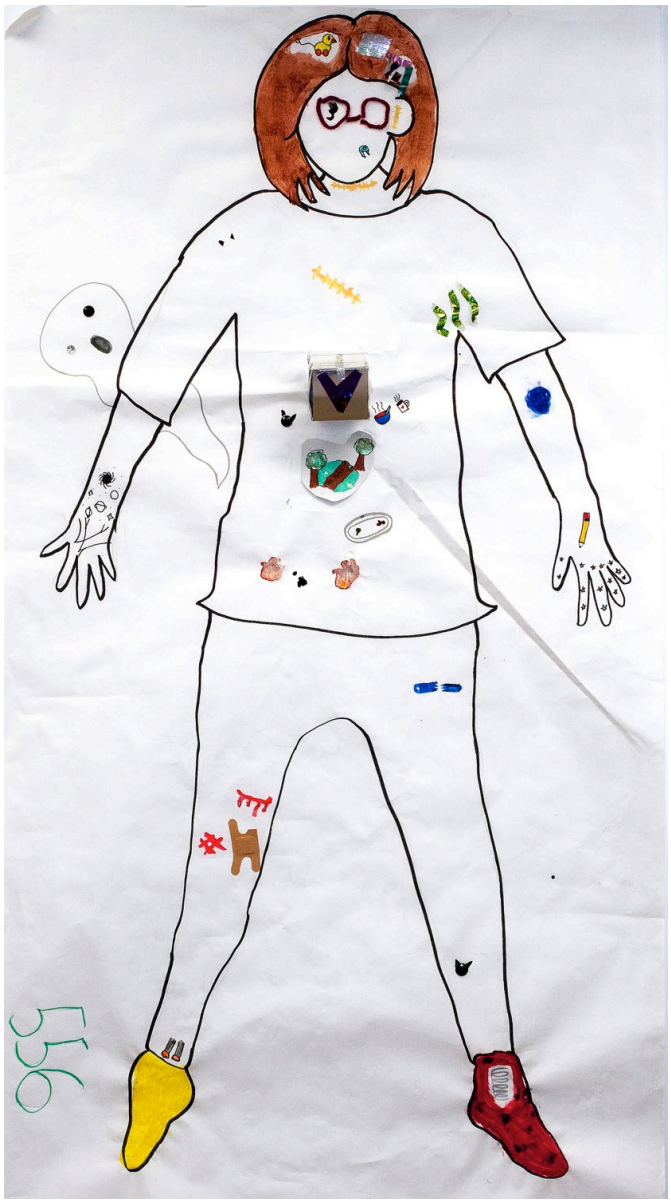

Figure 5.

faces. While this body artist (see Figure 5) gave herself glasses, she has no eyes. Noticeably, there are no mouths, except for an ambiguous circle where the nose and mouth might be on the first body map included. However, based on the symbolism across the groups, it seems to be an open mouth with bars encaging it—just as other artists have drawn a patch or label with "Sh" on it, stitches sewn across an absent mouth, or nothing. Physiology is crucial—to everything that happens in schools (learning, socialization, physical activities, music, drama, etc.) and to the quality of our lives. Studying the physical features given and not given to themselves speaks volumes of their embodied experience whether conscious or not of it. In order to embrace *a shift to and for the body*, that is—to and for health and wholeness—the mind body split, which privileges the former, must be discarded. Experience confirms the brain-mind/body are one and function as a unity. Nevertheless, the allopathic medical model and numerous academic disciplines, all of which influence education, value the thinking function—logos, reason, and abstraction—to our detriment. Taken further, most assessment privileges this function and worse, negates, even punishes use of the feeling function,[4] and its kin—emotions, affect, and bodily feeling. For any serious address of trauma, however, the body's wisdom must be rediscovered; its finitude not resented; its limitations not abhorred; its thought not disembodied. Teachers, counsellors, and leaders engaged in campaigns that seek to support child and youth mental health must then expect to be changed in their practice. For if they are not embodied, that is, in relation to their interiority, they *cannot* know when the child is neither, nor can they know how to respond appropriately (i.e. emotional regulation).

Ceremony and Social Engagement

In addition to being-in-the-body, creating and maintaining interpersonal and intrapsychic safety, security, and boundaries are required for teachers to intentionally attune to students and their needs. Each afternoon when the girl-participants gathered for the study, I had covered the

windows for privacy and rearranged the library to open spaces yet create boundaries for containment. I laid out art-making supplies, prepared drinks and snacks, and placed personally designated yoga mats in a circle—one for each of us. By the third meeting, when the girls came through the library doors, marked "Closed," they literally walk-ran toward the circle. With shoes and backpacks tossed aside, this ritual beginning built the energy of a ceremony. Our easy and comfortable engagement quickly created a palpable transcorporeal field, which extended safety, encouraged trust, and offered the potential to convert and regulate difficult arousal states,[5] such as anxiety and fear, into relational connection.[6]

All cultures celebrate essential elements of life in different forms of ceremony. Trauma expert, Sharon Stanley (2016) in her extensive experience and research with First Nations Peoples, describes a ceremony as involving encounters that "contain and hold the disturbed energy of trauma along with the natural healing forces of life" (p. 77). "In many ways," she continues, "the encounters of the new paradigm in Western healing practices, right-brain-to-right-brain affective embodied experiences that Schore (2012) advocates, are ceremonies that bring essential elements together for healing trauma" (Stanley, 2016, p. 77). Ceremony can take the form of a "contained intersubjective dialogue between two people of a group"; "a meditation, or the experience of sharing and embodying imagination and dreams, dancing, music, or other expressive forms" (Stanley, 2016, p. 77). The elements that constitute a ceremony "include embodied intersubjective relationships, the rituals of sacred, uninterrupted time, the development of bodily based rhythm and movement, and somatic relational exploration of internal and environmental influences on human experience" (Stanley, 2016, p. 77). *Social engagement*, stimulated by the ventral vagal circuit, *is continually strengthened to be the primary form of defense in traumatic moments* rather than the isolation that typically comes with a sympathetic reaction (Rosenberg, 2017). So the "quiet kids" on the margins of the classroom, the ones alone at break/recess or "resisting group work," may well be caught in a self-preservation defense; thus, *their behaviour is not who they are*, their personality, but rather unconscious action performed for survival. Ceremonies are valuable methods because they have the power to "bring the fragmented elements of dissociative experiences together in an alive and pulsing container for acknowledgement, conversion, metabolism, and transformation of lived experience" (Stanley, 2016, p. 78).

In developing a ceremonial encounter to support well-being, a clear and caring intention for the participants and me was required. An intention honours the unique transsubjective and transcorporeal relationship *in the moment* and gives careful body-based attention to space, pace, time, energy flow, and connection among participants and the environment—whereby an "ecology of relationship" (Hockley, 2018) constellates. Then follows, the greeting, a "moment of meeting," that fertilizes the "right conditions" of the encounter and the potential conversion from sympathetic arousal[7] to social engagement—a relaxed, parasympathetic response (Stanley, 2016, p. 78).[8] The greeting is mindful, involving a respectful presence and welcome; a moment of soft eyes, naming the other—Ms. J, Ms. M, Ms. S—and physical guidance with gesture and movement into the space where something can happen. Like a ceremonial dance, this embodied greeting set the theme and ethos of relational caring and respect for the girls as persons (Stanley, 2016).

After the intention and invitation, we engaged in breathing techniques. We charged our bodies and we calmed them. We grounded through eye contact and touch, and we expanded our body-containers by sustaining an energetic charge. They loved "grounding"—techniques

that drew their awareness into their bodies, such as rocking on their sit bones to feel the pressure of their bums against the mat and floor; the temperature of another's open palms in arms-forward-warrior-pose, or naming things by inviting the eyes (not "I") to scan the environment for what grabs them (i.e. green chair). Despite their initial discomfort with the breathing practices, when interviewed, they all reported using them during sports, at home, and in class, especially when angry, tired, or bored.

Figure 6.

We participated in visualizations and body scans. The first visualization was the most powerful and central to the work. They were invited to recall a memory or to imagine a place that made or would make them feel safe and content. They amplified the memory or imagining through detail—its colour, texture, size, shape, and temperature. Then they were invited *to feel into* their bodies and ask, "where does this symbol want to dwell—secure and readily available?" A Newfoundland beach scene from family vacations, for example, was painted on this artist's feet, complete with seagulls and glittering sand (Figure 6). This home base began their body narratives and offered a residence rooted within, protected and protective, for whenever needed.

Figure 7.

Equally important to these practices was for the participants to "safely experience their sensations and emotions" (van der Kolk, 2014, p. 215). This awareness was encouraged through internal scanning to notice sensations, emotions, and/or lack thereof in the body, such as tingles in one's heart for the love of nature. This participant-artist (Figure 7) asked me if I had additional hues of the green colour palette—sea, jade, Persian, and emerald—as she had an unwavering sense of the green that was her heart. Guided intuitively and somatically, the birth of this leaf took an entire session (1.5 hours), with multiple layers of paint and sparkle lovingly applied.

Schooling commits violence against children and youth when they ignore their bodies. Prolonged periods of time when children are required to sit still, be quiet, and follow instructions (without engagement) deadens their brains-minds and bodies quite literally. As a result, many have learned to dissociate, split out, or cut off from their bodies. The integration of contemplative practices sought to develop and support the girls' sense of self, as well as to teach them skills needed to communicate inner affective states and an attitude that honours their interiority. "Engaging the self-observing, body-based self system, which speaks through sensations, tone of voice, and body tensions" (van der Kolk, 2014, p. 238) aids to establish a relationship with an inner presence, which in turn, provides a sense of safety, which can be accessed when needed. Teachers can integrate such awareness and subsequent activities daily at any level of learning across curricula.

Sharing Circles, Boundaries, and Feelings

Sharing circles, like talking circles, while not a new idea for Indigenous people and Indigenist research, are newly being accepted as a research method in social science and educational research. As the beginning and closing ritual to each research afternoon, sharing circles were used to develop a community of trust and to establish a new ethos, "where each person had the opportunity to take an uninterrupted turn" while speaking to the topic, where each had an equal chance to speak and be heard (Wilson, 2008, p. 41). The yoga mats, deemed sacred space, provided a concrete visual for each girl to come into relationship with her own energetic space, body, and that of other. They also aided to demonstrate the importance of boundaries—physical, emotional, and intimate—wherein paradoxically a "sense of interconnectivity grows" (Stanley, 2016, p. 79). We can only feel safe if we know that others will respect our boundaries—not moving in too close or too far away; hence, the development of character style based on our early experiences of inundation and abandonment (Rosenberg, Rand, & Asay, 1985). Boundaries also reflect the capacity to build, sustain, and discharge energy. Thus, respect of this space was paramount and the girls took to the idea readily.[9] If we do not have boundaries, we protect ourselves through other means, that is, defenses, such as:

> withdrawal, control, side-tracking, creating rules, scapegoating, humour, sex, rationalizing, intellectualizing, name calling, perfectionism, black-white thinking, threats, gas-lighting, coldness, sweetness, excessive concern for the other—all are handy ways to avoid feeling and to avoid communication. The healthy alternative is to state valid feelings. (Katherine, 1999, p.115)

While sharing authentic feelings may sound simple, bodily sensations and emotions are not an overt part of curricula or learning, and so, unspoken, they lose value, become diminished, concealed even forgotten. In fact, most would not recognize them as vital to learning! For girls, in particular, this exclusion and devaluation is a form of neglect to their growing sense of self, in relation to their own bodies and awareness, and to their interrelations with others. Once stated, however, someone must be present to hear, to see, and to reflect back what was heard and seen. Such reflection can occur during check-ins and outs, in journal writing, even group work. Many teachers, especially in secondary schools, are not comfortable with reference to the inner lives of their students or even of themselves—their own bodies. But it is the fragmented self who is "at home in a disembodied state and content to rely on knowledge garnered through logic and reason . . . . When we divide ourselves into parts we lose the connection to the whole of who we are and our inner connection" (Mortimore, 2013, cited in Stanley, 2016, p. 65).

As long as emotions, feelings, and bodies are feared, responses to mental health needs will be grossly limited. Sensations are the touchstone to well-being. In truth, even the language of sensations—tingly, frozen, whirling, tight—has been forgotten. The question: What sensations do you notice in your body? usually requires several reiterations including reframing before a sensation is reported. The common answer is either an emotion or a narrative that becomes rationalization. For many with trauma, their sensory world is off limits because it can be frightening and painful to feel. In order to change, we need to open ourselves to our inner experience. Body awareness puts us in touch with our inner world—the transitory nature of our feelings, emotions, and perceptions. After all, emotions are inseparable from the body in which they are felt. They are the basis of our engagement with the world. Stanley

(2016) agrees: it is through "regulation of intense emotions" that we build resilience (p. 53). Since "emotional regulation is the critical issue in managing the effects of trauma and neglect, it would make an enormous difference if teachers, . . . and mental health professionals were thoroughly schooled [in such] techniques" (van der Kolk, 2014, p. 207).

When we learn to co-regulate and eventually self-regulate intense emotions, we can stop the repetition of old patterns. With practice, we can prolong the duration of time between sensation and impulse so we are no longer hijacked by the initial trauma response (fight, flight, freeze, and collapse). Because "the right hemisphere continues its growth over the life span, thereby allowing for [affective embodied]-induced plasticity in the system" (Schore, 2012, p. 107), we can gain reprieve from injurious memories frozen within our cells—potentially preserved lifelong. Emotional regulation techniques are critical for managing the effects of trauma and neglect—to say nothing of the anxiety, overwhelm, behavioural challenges, even depression, that are experienced by many on a daily basis at school. Various practices can be integrated into lessons and activities throughout a school day. To skillfully do so can restore an *earned secure attachment*, which requires an intersubjective relationship—two or more persons (pet or imaginal caring creature such as Szen, the caribou, in *Frozen*) both sensed and known to each other to the end that they can effectively co-regulate and make sense out of lived experience. This reattachment can occur even when reading an affective piece of literature aloud, followed by reflective discussion. What this shift asks of teachers is to develop self-care practices that restore their embodiment, thus presence, and an increasing capacity to sit in the unknown, uncertain, and uncomfortable.

Imagination, Play, and Creativity

"The greatest hope for traumatized, abused, and neglected children," offers van der Kolk (2014), "is to receive a good education in schools where they are seen and known, where they learn to regulate themselves, and where they can develop a sense of agency" (p. 351). To be seen and known requires being in relationship. It requires the other to be present, capable of attunement and the ability to separate what is personal and what is not, so to actually see, and see without judgement.[10] When a child does not have to defend or protect, she can genuinely imagine, play, and create. It is out of this state, psychoanalyst W. D. Winnicott (1971) claimed, "*a creative reaching-out can take place*" (p. 75). The "creative reaching-out" of playing, which he understood as the search for self—creative activity as the search for self—contributes to an integrated sense of self when another reflects back that play. For Winnicott (1971), play, reflected back by a friend or teacher, is the creation and validation of a meaningful relationship with the world. When awareness of one's inner reality, and elements of external reality unite in a safe and trustworthy environment, with another who "sees you"—"the individual can come together and exist as a unit [that is, as a *whole*], not as a defense against anxiety but as an expression of I AM, I am alive, I am myself. From this position everything is creative" (Winnicott, 1971, p. 76).

While this may sound basic, doable, teachers have become overloaded, even overwhelmed by large class enrollment, diverse individual needs, and accountability to student performance on standardized exams. Teachers' capacities to be calm, embodied, and present are among, if not the most crucial factors to support students' sense of safety. When children cannot find the safety and care needed for healthy attachment and development in their own homes, schools then become sites of hope where such development might occur. Too often,

disturbing behaviour, truancy, and rebellion are interpreted as a threat to order and classroom management, whereby, it becomes personal for teachers, rather than as frustrated attempts to communicate distress and misguided efforts for self-preservation.

"More than anything else," van der Kolk (2014) stresses, "feeling safe with other people defines mental health"; safe relationships are "fundamental to meaningful and satisfying lives" (p. 352). As educators, we are now obligated to "foster reciprocity" (not equal but mutual) (van der Kolk, 2014, p. 352). That is, to hear and be heard—sincerely, to see and be seen—honestly. Addressing the effects of trauma in children and youth begins with fostering safety, establishing predictability (not stifling repetition), and ensuring teachers' capacities to see, hear, and know children/youth.[11] Studies repeatedly demonstrate that "having a good support network constitutes the single most powerful protection against becoming traumatized" (van der Kolk, 2014, p. 210). In the same manner, "traumatized people recover in the context of relationships" (van der Kolk, 2014, p. 210). "Not being seen, not being known, and having nowhere to turn to feel safe is devastating at any age, but it is particularly destructive for young children, who are still trying to find their place in the world" (van der Kolk, 2014, p. 88). Only in the last 20 years has the extent of the "problem of developmentally injured human beings begun to be recognized and understood" (Felitti, 2010, p. xiii). The limits of that understanding and the resistance to it have reached critical levels—"causing a serious and widespread threat to health and well-being" (Felitti, 2010, p. xiii). We can look to Adverse Childhood Experiences (ACE) studies for striking results that confirm the relationship of childhood trauma, abuse, and "household dysfunction" to multiple "health risk factors, adult disease, and many of the leading causes of death in adults" (Felitti et al., 1998, p. 245).

Witnessing, Imagination, and Feeling-Felt

Figure 8.

With safety established among the participants, we moved from our opening ritual of sitting circle, to where the girls worked comfortably and silently on the floor, engaged in various creative processes. The body-centered symbolic process lasted 60-90 minutes. For six arts-integrated sessions, sensations felt via body scans directed what symbols were added to their body maps each week. Some worked sitting to the side of their maps, leaning in, while others sat upon their bodies working intimately through constant touch (Figure 8). In this way, hour after hour, day-by-day, they noticed themselves: they noticed their bodies; they noticed what they felt; and they noticed where they felt it. They learned to attune physically with their sensations, feelings, and their experiences so to voice the way they individually perceived their bodies, their lives—their stories.

To amplify with increased detail what they noticed aided to increase consciousness about their inner worlds. When we pay focused attention to our bodily sensations, we can recognize the ebb and flow of our emotions and, with that, increase our control over them. For van der Kolk (2014), "the core of recovery is self-awareness . . . . Body awareness puts us in touch with our inner world . . . [without such awareness and the ability] to observe the

interplay between our thoughts and our physical sensations" (pp. 208-209) there can be no healing. Taken further, our inner worlds in meaningful relation to our outer worlds is what moves us toward reflective self-conscious awareness of our dynamic interconnected web of life and thus to empathy and reciprocity.

In response to the particularities shared during this research, I was compelled to bear witness to the girls' lives. As witness—I listened without judgement, was open and curious. Witnessing says that your suffering matters. Indeed, this vital element permitted the felt experience needed for the participants to *feel felt* and consequently, seen, heard, and accepted "just as I am." The experience of being oneself, of being with oneself, without critique, inundation, abandonment, or expectation, grants us a sense of connection and joy—as revealed when we said goodbye at the end of the interviews and several girls (and I) wept openly.

Within trauma studies, imagination has been deemed "absolutely critical to the quality of our lives" (van der Kolk, 2014, p. 17). Learning how to integrate imagination, that is, divergent, convergent, and evaluative opportunities, across and through the subject-areas becomes fundamental to pedagogy. Connecting the emotional, symbolic, and imaginal domains with learning develops the right hemisphere. The right hemisphere knows through contact with direct phenomena of lived experience and is interested in sensations, movements, emotions, and images that spontaneously emerge when we process internal and external events. The left hemisphere, the favoured side within formal systems of learning, is not interested in the body as the "intersection between ourselves and the world at large" (McGilchrist, 2009, p. 67). And worse, it can fragment body-based experiences from mental activity. When living in "chronic disembodied states," people discount, even neglect, the communications of their sensations and emotions, creating idealized alternate "states of being that are out of touch with the reality of their lived experience" (Stanley, 2016, p. 65).

For trauma experts, van der Kolk (2014), Levine (2015), and Stanley (2016), we are moved, changed, and transformed as we surrender our abstract, logical, and sequential ways of knowing to the bodily-centred, emotional, and imaginal dynamics of our lived experience (Sieff, 2015). Affective embodied experience has the power to spontaneously shift trauma-based neurological states and stimulate an intrinsic vitality to transform brain-mind/body patterns that formed through traumatic experiences (van der Kolk, 2014). Educators must have access to new understanding and professional learning opportunities whereby they too can experience relational and body-centered approaches so to invite the body and the arts into their classroom practice (pedagogical, ethical, and relational). Such development will, in hand, contribute to changing the schools' social and/or physical environment, engaging students' families and the local community, and improving resilience.

Trauma research shows that attunement via human contact is central to physiological self-regulation. *Relationships are the single most powerful protection against becoming traumatized.* After all, "trauma is about loss of connection—to ourselves, to our bodies, to our families, to others, and to the world around us" (Levine, 2005/2008, p. 9). Hence, those who become displaced or exiled—an ever-increasing number of people in Canada, including Indigenous peoples through ongoing colonization, in Canadian schools, and the world—have lost their connection to land, language, culture, and family, and often experience complex trauma. Emotional and interpersonal trauma happens in relationship and so in healing.

After being in the school four months doing research, I realized that despite genuine concern, many teachers, like regular people, were often disembodied. When present, somatic empathy communicates to people that they are seen, felt, and understood just as they are, allowing them to *feel felt.* When we are not embodied, there can be no somatic resonance, no empathy. I was receptive to the girls' fluctuating and often intense emotions—sadness, anger, worry, and fear—while offering containment and vitality in the moment. Through body language, facial expression, and tone of voice, my nervous system communicated directly with the girls' nervous systems. "In an authentic relationship based on a somatic sense of empathy," describes Stanley (2016), "practitioners are committed to knowing the other in the other's own internal terms" (p. 4). She adds, the "foundation for helping people suffering from trauma lies in the development of an empathetic embodied relationship, a connection that provides the intuitive wisdom to respond to the person *in the moment* with resonance and contingency" (Stanley, 2016, p. 5). Somatic empathy does not ask teachers to be mental health professionals; however, it does ask for conscious, embodied relatedness as much as possible. Research in interpersonal neurobiology has uncovered that injuries from trauma lie in the brain and body, not just the mind. We now know what traditional societies have always known: "the brain changes through empathetic relational experiences between individuals within caring communities and, particularly, in the repair of breaches in those relationships" (Stanley, 2016, p. 5).

Figure 9.

During the one-on-one interviews at the end of the study, when I asked the girls about their experiences of participating in the project, six of eight deemed the check-ins "their favourite aspect." When asked, "What about them?" They said, "You listened. We got to say how we felt, how we were doing, and we heard about each other." Their pitch and pace changed as they responded. Their faces became quizzical, pensive, perhaps checking to see what I thought of their responses.

The check-ins in hindsight offered them something that was needed *in that moment*. Listening with presence makes a person feel valued and valuable. Literally, my physical presence was essential. Metaphorically, it meant being emotionally available in a way that the girls felt my undivided attention to them and the needs of the situation moment by moment. This interplay revealed itself again with their second most favourable aspect of the project: me "serving them food and drink." This answer was always sheepishly given. When I probed further, a couple did not know what to say. It became clear; it was not the food alone—it was

the contact with me via the food. When I reframed the question, "how did it feel when I came to you with a tray of goodies and offered you some?" To this, a few went silent, and a few cried.

In perhaps a maximum two-minute exchange, the girls experienced *feeling felt*. That is, I was embodied when I made contact; my heart was open to them; I moved slowly, pausing, waiting, giving each lots of time to choose food—to bypass their own reluctance and imposed limitations—and to change their minds. But in that short time span, attunement occurred between our bodies, and they felt it. "Feeling felt" is an embodied physical state akin to Gendlin's (1980) "felt sense"—a bodily awareness of interconnectivity (which includes brain-mind) in a given a situation—itself a form of mirroring.

I emphasize "somatic empathy" because empathy has often involved a more cognitive left-hemispheric interpretation—an attempt to understand another *without "feeling with"* despite empathy meaning "in-feeling." Empathy has been misunderstood as a reflective mental achievement that can occur without full-body participation and awareness of feeling with another (Stanley, 2016). To differentiate, somatic empathy requires a right-brain-to-right-brain relationship (Schore, 2010)—"it is about *feeling felt* rather than simply being seen, heard, or understood" (Stanley, 2016, p. 105). The right hemisphere of the brain gathers and processes sensory-motor stimulation, primitive emotions, movements, and emergent images (Stanley, 2016, p. 91). Sustained somatic awareness of specific areas in the body accelerates neural firing. Said otherwise, "networks that are actively firing together are wiring together into new neural networks" (Stanley, 2016, p. 91). Networks that become fused in moments of trauma can be separated to fire individually while others can be joined for connectivity. That means, whatever we attend to grows and flourishes neurologically. In this way, the practice of somatic awareness rekindles the energetic life force required for the reorganization of body, brain, and mind. Such vitality, often sheared by trauma, is foremost for "healing and living in the moment in creative, adaptive, and intimate relationships" (Stanley, 2016, p. 91). Vitality is a "manifestation of life, of being alive. We are alert to its feel in ourselves and its expression in others" (Stern, 2010, p. 3). As Stern (2010) elaborates, "We live impressions of vitality like we breathe air" (p. 3), and "we experience people in terms of their vitality" (p. 3)—a felt experience when interacting with others in motion. "The experience of vitality," in his exploration, "is inherent in the act of movement. Movement, and its proprioception, is the primary manifestation of being animate and provides the primary sense of aliveness" (Stanley, 2016, p. 9).

Concluding Remarks

"Trauma," according to Peter Levine (2005/2008), "is the most avoided, ignored, denied, misunderstood, and untreated cause of human suffering" (p. 7). Its imprints are stored not as narratives about bad things that happened in the past but as palpable sensations that are experienced as real life threats—in the moment. There is much that can be done in our teaching that can support emotional and mental health—integrating movement, pauses and breaks, creative processes, more imagination, breathing techniques, communal activities, meaningful involvement, rituals, sharing circles, and slowing the pace. We can also welcome curiosity, humour, and playfulness—especially play—throughout the day and across all areas of schooling. Most important, both to the girl-participants and trauma research, is emotional regulation through face-to-face contact, taking time to share, and building relationships. The

structure and implementation of the study included the creation of quiet safe space, fostering safety within the group and among individuals, predictability, clarity of expectations, and consistency. Too, new ways to talk about sensations, the body, and feelings were modeled; attention was given to the transitory nature of feelings; and multiple points of view rather than consensus was encouraged. Indirectly, the study offered the participants ways to practice self-leadership and an internal locus of control. Above all else, we proceeded by the body, with the body, for the body—which always implies brain-mind and soul.

Meeting whole school approaches and select teacher competencies regarding mental health cannot be addressed as a thing to be acquired or to be addressed once and for all. Addressing mental health necessitates fresh understanding alongside the development of relational and somatic skills and attitudes. For without compassion and care, an enduring response to mental health will not be possible. Whether in solitude or with others, our subjective relation to (and relationship with) our own interior informs our capacity to create meaning, connect to sentient beings, and engage life in fulfilling ways. "Our relation to interiority progressively evolves over time and persistently demands that we analyze ourselves in authentically honest and confessional ways, both as we find ourselves in the present and as we wish to be" (Mills, 2017, p. 165).

[1] *The Jack Project* is Canada's only charity to train and empower young leaders "to revolutionize mental health" across the country. It is a youth-led social movement (see: https://jack.org).

[2] Here, ethical consideration must reflect the values of the paradigm. Meeting the institutional requirements: Research Ethics Board (REB), Cooperative Activities Program for Edmonton's school districts (CAP), which includes a police information check, and the Alberta Teachers Association code of ethics are not enough. These are the formal requirements but alone do not reflect the ethos of the group, the topic, or the axiology of an animated paradigm.

[3] This inclusion was a formal element of the study wherein semi-structured questions were submitted and ethics approval was required.

[4] Feeling is the psychological function that evaluates or judges what something or someone is worth. In Jung's view, it is a rational function, like thinking, in that it is decisively influenced not by perception (as are the functions of sensation and intuition) but by reflection. In his words, "a feeling is as indisputable a reality as the existence of an idea" (CW 16, par. 531).

[5] "Humans have a triune brain (three brains functioning together as one mind)" (Levine & Kline, 2007, p. 86). There are three integral parts that, ideally, work together. The neocortex (new) or *rational* part of the brain is responsible for inhibition of inappropriate actions, perception, problem solving, planning, and other complex rational thinking skills. The mammalian brain, also known as the limbic system or *emotional brain*, processes memory and emotion, expresses and mediates instincts and motivational drive, and is connected to attachment. The reptilian or lower brain is responsible for *survival*—fight, flight, freeze, collapse—and functions that accompany regulatory mechanisms of basic existence (digestion, reproduction, circulation, breathing, etc.). Each part has specialized functions and its own language: the thinking brain speaks with words; the emotional brain speaks with feeling (joy and sorrow); and, the reptilian speaks the unfamiliar but critical language of sensation. When in highly aroused or difficult states, such as fear, access to the rational and relational brains shut down. The autonomic nervous system takes over by registering danger wherein the message becomes: "I must survive." Only when the heightened physiology (trauma) down-regulates, do the other brains come on line and so the person can return to relations (emotional), thought (words), and reconnect soul and body in *present* time. The cycle is complete when a sense of curiosity and interest in the outer world seems to arise naturally (see Levine & Kline, 2007).

[6] The ATA document, "Creating a Compassionate Classroom," states: "mental illness requires attention from a professional, while mental health problems may simply need support and attention of a caring adult" (p. 3). Such "problems," it explains, "are a common experience of negative or upsetting emotions or thoughts" (p. 3). It is critical to avoid qualifying or judging an emotion, such as anger or fear, as "negative" because its value can only be ascertained in the wider scope of context and consequence. Anger and/or fear—"mammal-universal emotions" (Levine, 2015, p. 22)—might be the very emotion(s) that protect/s the child in a given situation and so the best

response. In my call for integrative paradigms and perspectives, an argument must be made for intercultural understanding of "mental illness" (see research by Regan Holt, 2019), such as "depression" (ATA, n.d., p. 2). For example, Elders, healers, and communities can tend depression. A similar argument unfolds for diagnosis and treatment by "a medical professional" (p. 2). We stand to gain significant steps in healing cross-culturally if we move out of the singularity and monocracy of an allopathic medical model. There are other valid and valuable conceptions of what constitutes "mental illness" and so its address.

[7] A sympathetic response activates the nervous system wherein access to the pre-frontal cortex is inhibited. The sympathetic response may take the form of fight or flight—mobilizing us to meet the emergency (perceived or real), or its more heightened dorsal vagal reaction, a state of freeze or collapse. A freeze response is accompanied by an intensification of the already activated sympathetic-adrenal arousal, springing us into hyper-drive and simultaneous immobility; we become "scared stiff" (Levine, 2015, p. 45). Once the threat level is perceived as inescapable or mortal, we progress to collapse—"a profound state of hopelessness and helplessness" where our bodies and soul give up and our metabolic processes (digestion, respiration, circulation, and energy production) shut down (p. 45). When stuck in this state of shut down, with both the accelerator and brake fully engaged, the autonomic dynamics may flip back and forth almost instantaneously between sympathetic and parasympathetic (vagal) dominance—hyper- and hypo-arousal. When stuck in this unstable phase, people are left in the "sheer hell realm of trauma, paralyzed with terror, while experiencing eruptions of blind rage yet devoid of the sustained energy to act" (p. 46).

[8] A parasympathetic response down-regulates the nervous system, permitting access to the mammalian or relational brain.

[9] At the end of the study, after the girls departed from the library, many were seen hours later still carrying their yoga mats slung over their shoulders. Each was gifted her personal yoga mat so that she could "carry the practice" away with her.

[10] Without conscious effort here, including an exploration and acknowledgement of one's personal shadow, what is often seen in other is unconscious negative/positive projection of self. In many cases, we are attracted to those who are similar to ourselves (both consciously and unconsciously) and are repelled by those who carry qualities similar to the parts within ourselves that are denied, forgotten, disowned, or disavowed.

[11] These capacities require secure attachment on behalf of the teacher; a well-established and reliable self-awareness; personal knowledge and skills regarding fragmentation, dissociation, and boundaries; shadow work; and emotional regulation.

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The Role of Self-Reflection in an Indigenous Education Course for Teacher Candidates

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Abstract

This paper explores the role of self-reflection in a teacher education program. In a mandatory Aboriginal Education course in northwestern Ontario, teacher candidates participated in a variety of self-reflection activities that included two reflection papers, non-traditional sharing circles, and lectures, and classroom discussions that challenged common myths, stereotypes, and prejudices about Indigenous peoples. In a survey with open-ended questions administered at the end of the course, 36 teacher candidates shared their perspectives about self-reflection at the end of the course. Findings from the survey were correlated with seven teacher candidates' reflection papers and with my personal reflections as a participant-as-observer in two of the mandatory courses. The themes that emerged from analysis were placed into three categories; these categories described the role of self-reflection as a process of (1) self-evaluation, (2) establishing personal connections with course theory, and, (3) developing a culturally inclusive pedagogy. The findings suggest that self-reflection in an Indigenous Education course can provide teacher candidates with an effective approach to uncover, identify, and examine internal biases that impact their understanding of teaching Indigenous students and integrating Indigenous content into the curriculum.

Keywords: Indigenous Education; self-reflection; teacher education

The Role of Self-Reflection in an Indigenous Education Course for Teacher Candidates

Self-reflection in education is recognized as a valuable method for developing and improving teachers' professional practice (Farrell, 2012; Mason, 2007; Milner, 2003; Ottesen, 2007; Rodgers, 2002; Schön, 1983). In teacher preparation, self-reflection and reflective practices are utilized for eliciting and examining teacher candidates' personal beliefs and theories about teaching, learning, and the curriculum (Stock, Sameshima, & Slingerland, 2016; Tann, 1993; White, Sameshima & Sinner, 2015). Advocates of culturally responsive teaching refer to self-reflection as a process for developing self-awareness and understanding of one's own cultural frames of reference (Gay, 2010; Hammond, 2015; Villegas, 1988). In Hammond's (2015) work on culturally responsive teaching, she encouraged teachers to engage in self-reflection and reflective activity to "examine the deeply held beliefs that influence how they respond to students" (p. 56). Self-examination through reflection is described as vital in cross-cultural teaching contexts as teachers are asked to become cognizant of their biases and reactions to students and curriculum (Delpit, 2006; Grant & Sleeter, 2007; Nuri-Robins, Lindsey, Lindsey, & Terrell, 2012). The findings in this paper explore teacher candidates' perspectives on the role of self-reflection in a mandatory Aboriginal Education course in a teacher education program. Focusing on self-reflection has the potential benefit of improving teacher candidates' capacity to value and engage with knowledge and perspectives different than their own by increasing their self-awareness in relation to Indigenous content in teacher education courses.

Context

Researchers across Canada have described various ways that teacher candidates can increase their knowledge and understanding to integrate Indigenous histories, cultures, and perspectives into their teaching practice (Nardozi, Restoule, Broad, Steele, & James, 2014; Scully, 2012; Tupper, 2011; Vetter & Blimkie, 2011). The most common observation from the analysis of relevant teacher education research was teacher candidates' overwhelming lack of knowledge and understanding of Indigenous knowledge and issues in education (Blimkie, Vetter, & Haig-Brown, 2014; Nardozi et al., 2014) as well as a lack of awareness of the historical and current relationship between Indigenous and non-Indigenous peoples in Canada (Dion, 2007; Tupper, 2011). Added to this, was a persistent resistance by some teacher candidates to learn about, or value the integration of Indigenous histories, cultures, and perspectives, with mandated Kindergarten to Grade 12 curriculum (Mashford-Pringle & Nardozi, 2013).

Teacher candidates arrived in teacher education programs with theories, ideas, and beliefs about education and schooling that derived from personal experiences (Keltchermans, 2009; Tann, 1993). Because of the large number of teacher candidates with inaccurate, little, or no knowledge of the cultural heritage of Indigenous peoples in Canada, it is important that teacher candidates examine their own beliefs, assumptions, and biases that shape and influence their pedagogical practices. In the study presented here, self-reflection was examined as a potential approach for teacher candidates to uncover internal biases and to develop their understanding of teaching Indigenous learners and integrating Indigenous content.

Literature Review

The theoretical framework of this study was guided by literature on culturally responsive teaching (Gay, 2010; Hammond, 2015). The term culturally responsive teaching has numerous variations such as culturally responsive pedagogy (Ladson-Billings, 1994), culturally responsive

schooling (Castagno & Brayboy, 2008), and culture-based education (Demmert Jr., 2011). The main focus of the study described in this paper was the preparation of teachers to teach Indigenous students in a culturally responsive framework. That being the case, the term culturally responsive teaching and acronym CRT is used throughout this review to represent the variations within this body of work.

The purpose of CRT is to eliminate cultural incongruence and increase the academic achievement of students by providing an education that is both "validating and affirming" (Gay, 2010, p. 31) to all students. A CRT approach to teaching does not view cultural differences as a disadvantage; instead it advocates for students' cultural backgrounds to be a source for pedagogical knowledge and content (Castagno & Brayboy, 2008; Hammond, 2015; Villegas & Lucas, 2002). In Hammond's (2015) connection of CRT with neuroscience, she wrote that culture is the way in which every brain makes sense of the world, and that for anyone to learn, "all new information must be coupled with existing funds of knowledge" (p. 48). In other words, "all learners have to connect new content to what they already know" and what students "already know is organized according to … cultural experiences, values, and concepts" (p. 49). This approach is often advocated for in Indigenous schools or communities (Oskineegish, 2015).

Developing a CRT approach to education in an Indigenous context often requires three tasks or components that an educator must engage in. I have described the first component as the acquisition of accurate knowledge within Indigenous education (Castagno & Brayboy, 2008; Lewthwaite, Owen, Doiron, McMillan, & Renaud, 2013; Villegas & Lucas, 2002). This foundational knowledge includes an understanding of the historical and current relationships between Indigenous and non-Indigenous people and communities in Canada (Cannon, 2012; Dion, 2007, 2009), and the impact of political, social, and educational policies and practices that have affected Indigenous peoples throughout Canada, such as the Canadian Indian Residential School system (Miller 2003; Regan, 2010; TRC, 2012). The second component is described as knowledge that emerges from reciprocal relationships between teachers and students, families, and local Indigenous communities (Moll, Amanti, Neff, & Gonzalez, 1992). A teacher's capacity to develop caring relationships with students in the classroom has a direct impact on students' comfort, well-being, and academic achievement (Cohen & Bai, 2012). In CRT, the relationships between a teacher and students, parents, and community members forms the foundation for understanding who a student is, and that exposes a teacher to specific experiences and knowledge that can be drawn upon in lesson development (Oskineegish & Berger, 2013; Villegas & Lucas, 2002). It is relationships with people, not objects, that are the root of understanding culture (Curwen Doige, 2003). The third component, and the focus of this paper, is the necessity of self-awareness and self-knowledge as it relates to teacher development (Gay, 2010; Hammond, 2015). Self-awareness is described as the act or willingness to reflect critically on one's own beliefs and attitudes (Garmon, 2004). Self-awareness brings forward the potential for teachers to see how their experiences have shaped their knowledge, beliefs, and attitudes, and how this understanding informs their teaching approach (Sameshima, 2007). In CRT, self-awareness is also the willingness to reflect critically on experiences that have informed one's own concepts of race and racism, White privilege, and oppression (Solomon, Portelli, Daniel, & Campbell, 2005). In this paper, the use of a self-reflective paper is reviewed as an approach for promoting self-awareness and self knowledge in a mandatory Aboriginal Education course in a teacher education program.

Self-Reflection

Scholars who have investigated teacher preparation in cross-cultural teaching have identified self-reflective practices as a way in which to open teacher candidates to new and alternative ways of teaching and learning (Gay & Kirkland, 2003; McDowall, 2017). In Tann's (1993) description of the role of self-reflection in teacher preparation, she wrote that teacher candidates arrive in teacher education programs with prior experiences, knowledge, beliefs, and assumptions which she identified as their "personal theory." She explained that teacher candidates must "elicit and articulate their personal theories … [to access] their ways of conceptualizing teaching, learning, and the curriculum" (p. 56), arguing that self-reflective practice is an effective process that expands and clarifies teacher candidates' personal beliefs, ideas, and assumptions through "the challenge of comparison and contrast" (p. 56). This process leads teacher candidates to open themselves to new ways of thinking about teaching that extend beyond their own experiences. Part of the purpose of Indigenous content in teacher education programs is to eliminate the concept of deficiency when discussing cultural difference, and to foster an understanding and awareness that colonialism and racism is everyone's problem, not just an Indigenous struggle (Cannon, 2012; Schick & St. Denis, 2005). This is accomplished not by only learning about others, but by learning about one's self, one's own beliefs and attitudes, and how these have been shaped by one's social, cultural, and political experiences (Nuri-Robins et al., 2012).

One of the challenges of implementing self-reflection is an overall lack of clarity surrounding its purpose and use in teacher preparation and development (Ottesen, 2007; Rodgers, 2002; Russell, 2013; Valli, 1993). As Russell (2013) explained: "Teacher candidates tend to complete a program with a muddled and negative view of what reflection is and how it might contribute to their professional learning" (p. 87). These challenges may be exacerbated in Indigenous education courses that prepare large numbers of non-Indigenous teachers who possess little to no prior knowledge or understanding of Indigenous education issues or perspectives (Nardozi et al., 2014).

In previous research focused on Indigenous education courses in Faculties of Education, there are only a few examples of the use of self-reflection activities (e.g., Aveling, 2006; Dion, 2007; Iseke-Barnes, 2008; McInnes, 2017; Scully, 2012; Wolf 2012), and none that have focused specifically on students' perspectives of self-reflection on their developing understanding of teaching Indigenous students. In this study, teacher candidates responded to two open-ended questions at the end of the course about the role of self-reflection in the course after completing a self-reflection paper, and in-class discussions and sharing circles that invited teacher candidates to engage in self-reflection. They described the various ways that self-reflection assisted in uncovering internal biases and assumptions, as well as the challenges encountered with self-reflection in a teacher education course. The findings suggest that self-reflection in an Indigenous education course is an effective method for confronting biases, which more often than not encourages teacher candidates to be more open to developing an understanding of integrating Indigenous content and inclusive pedagogical practices.

Methodology

The findings in this paper are drawn from a mixed methods study that embedded a smaller quantitative approach within the larger qualitative research design (Creswell, 2010; Johnson,

Onwuegbuzie, & Turner, 2007; Tashakkori & Teddlie, 2010). The combination of methods was built on a complementary stance as each paradigm was kept separate in its administration and analysis (Creswell, 2010). Data collection for the broader research derived from multiple methods (i.e., an 11 item 5-point Likert survey, three open-ended questions, semi-structured interviews, student artifacts, and reflective journaling) and from multiple perspectives (i.e., teacher candidates from two sections of Aboriginal Education, current and previous Aboriginal Education instructors, and my role as participant-as-observer).

In this paper, the written responses from two of the open-ended questions are examined with eight reflection papers completed by teacher candidates enrolled in two sections of an Aboriginal Education course, and journal entries of my personal thoughts, reactions, and ideas during my participant-as-observer role in both sections of the Aboriginal Education course (DeWalt & DeWalt, 2002; Savin-Baden & Major, 2013). The position of participant-as-observer helped me, as a non-Indigenous researcher, to understand what I read in the literature, and occasionally helped directly in my understanding of the role of self-reflection as described by teacher candidates in the study.

The teacher candidates (n=44) who participated in this study completed a mandatory Aboriginal Education course in the fall 2016 semester of a teacher education program. Through participation and classroom conversations, it was evident that nearly all teacher candidates in both courses were non-Indigenous. Twenty-three teacher candidates were undergraduate students in the concurrent education program, completing the Aboriginal Education course in 12 weeks. Twenty-two teacher candidates were in the 1-year teacher education program, completing the course in nine weeks. Both courses were taught by Dr. Paul Cormier, an Indigenous instructor who followed a similar course design and instructional strategy in each course.

Dr. Cormier, who is Anishinaabe from Red Rock Indian Band, utilized a variety of assignments and methods of instruction that promoted self-reflection. These included: a) two personal reflection papers (approximately three pages in length) that asked teacher candidates to synthesize their understanding of required class readings with a personal examination of their perspective or position towards Indigenous education; b) non-traditional sharing circles that provided teacher candidates with knowledge of the ceremonial teachings of a traditional sharing circle by the instructor (Lavallee, 2009; Nabigon, Hagey, Webster, & Mackay, 1999) and, during which teacher candidates shared their personal experiences and thoughts on course readings or assignments; and, c) lessons that challenged common myths, stereotypes, and assumptions about Indigenous and non-Indigenous historical and contemporary relationships in Canada. He did this by integrating theory, personal stories, experiential learning, and land-based lessons.

On the last day of class, teacher candidates provided feedback on a post-course survey, developed by the researcher, with two open-ended questions that asked: *Did you find that the reflection papers supported your learning in this class? Why or why not?* And, *why do you think teacher candidates are asked to think about their own personal perspectives and understanding of First Nation, Métis, and Inuit histories, cultures, and perspectives in their preparation as a teacher?* These questions were finalized prior to the end of the course, and were guided by the pedagogy and content of the course. The decision to focus on teacher candidates' perspectives of the reflection paper occurred for two reasons: First, after the instructor of the course graded the self-reflection papers, he described them as insightful and suggested that I gain teacher candidates' permission to include in the study, and secondly, in my role as participant-as-

observer, I found that a lot of time throughout the courses were devoted to discussions about the papers. For example, during a non-traditional sharing circle the majority of teacher candidates spoke about what they had written in their reflection paper and how it impacted their understanding of course content

Thirty-six out of a possible 45 teacher candidates from both sections of the course responded to the open-ended questions. Three teacher candidates did not provide a response, and six were absent during the survey administration. All teacher candidates were also invited to share their completed reflection papers with the researcher for use in the study. Seven teacher candidates shared their first reflection paper with me after it was graded and returned. Although I didn't request it, one teacher candidate shared another reflection paper completed at the end of the course for a total of eight papers. To protect participant anonymity, participant codes were assigned for teacher candidates' survey responses and reflection papers during analysis. Each survey was assigned the code, TC, followed by a number, and each reflection paper was assigned a separate code, RP, followed by a number. These codes are used in this paper.

Analysis

Analysis of the open-ended questions, teacher candidates' reflection papers, and notes from class discussions that emerged from my role as participant-as-observer were conducted using ATLAS.ti, a qualitative coding program. Teacher candidates' responses from the open-ended questions and reflection papers were coded for themes, terms, phrases, and patterns that were repeatedly identified (Creswell, 2010; Savin-Baden & Major, 2013). From these codes, I developed three categories that captured teacher candidates' perspective of the role of self-reflection in an Indigenous education course, they are: 1) A process for self-evaluation of knowledge, biases, and assumptions about Indigenous cultures, histories, or perspectives acquired either by prior schooling or personal experiences; 2) A process for creating personal connections between personal experiences or beliefs and course theory and reading assignments; And 3) a process for developing a culturally inclusive pedagogy.

From the open-ended questions, 12 teacher candidates provided a response that corresponded to only one of these bulleted points, while 24 teacher candidates described multiple uses for self-reflection that corresponded with more than one. In the self-reflection papers, all eight papers demonstrated evidence of self-evaluation and a connection between personal experiences or beliefs and course theory. Only three of the reflection papers referenced culturally inclusive pedagogy.

The findings within the study provide insight into the multiple uses and, in part, the impact of self-reflection in an Indigenous education course described by teacher candidates. The findings discuss teacher candidates' perspectives of self-reflection in an Indigenous education course.

Findings

Findings originate from three different analyses: the survey in which 80% of teacher candidates participated; reflection papers by 15.5% of teacher candidates in the class; and personal notes from my role as participant-as-observer in 21 classes. On the last day of class, teacher candidates were asked to respond to the following open-ended questions: *Did you find that the reflection papers supported your learning in this class? Why or Why not?* Twenty-eight of the 36 teacher

candidates who responded (45 in class total) described self-reflection activities as beneficial to their learning experience, and seven disagreed. The second question on the survey asked teacher candidates: *Why do you think teacher candidates are asked to think about their own personal perspectives and understanding of First Nation, Métis, and Inuit histories, cultures, and perspectives in their preparation as a teacher?* All of the 36 teacher candidates provided their perspective.

The following section discusses teacher candidates' survey responses in relation to the three defined categories. The survey responses are supported with examples from the seven teacher candidates' reflection papers, and in a few cases, observations noted in my reflective journal. A brief exploration of teacher candidates' critique of self-reflection activities concludes the findings section.

A Process of Self-Evaluation

Twenty-eight teacher candidates referenced self-evaluation in their response to the open-ended questions. From these responses, there emerged three types of self-evaluation statements, claiming that self-reflection raised awareness of personal knowledge or bias, provided an opportunity to expand knowledge and awareness, or aided in an exploration of the influences that have shaped knowledge and awareness (see Table 1).

Table 1
Self-reflection as a process for self-evaluation

Type of self-evaluation	Number	%
Raised awareness of personal knowledge	12	42
Provided opportunity to expand knowledge or awareness	9	32
Influences that have shaped knowledge	7	25

Twelve teacher candidates wrote that self-reflection helped develop a self-awareness of knowledge or bias. In one example of this, a teacher candidate responded, "In order to develop in Aboriginal topics, one must be able to reflect on where they are starting and what their current knowledge is" (TC, 25). Another teacher candidate wrote, "It also allowed us to analyze our previous assumptions, knowledge, and schemas towards Aboriginal peoples and their history [and] culture," adding that self-reflection helps teacher candidates "to identify any hidden prejudice [and] stereotypes they may have formed, and to allow them to remove their bias from the classroom" (TC, 37).

While these statements acknowledged the importance of self-awareness, nine teacher candidates took this idea further and connected self-awareness with personal growth. One teacher candidate wrote, "In order to grow [and] expand our knowledge, we must first think about where we stand in our perspective" (TC, 31). In another response, a teacher candidate thought that the role of teacher candidates engaging in self-reflection was to "understand their

base of knowledge and why they have more or less than their peers. Then they can build on that fact" (TC, 82).

Building on this notion of identifying and expanding personal knowledge, seven teacher candidates described reflective practices as an opportunity to examine how their knowledge, awareness, and biases were formed. These responses pointed to family, prior schooling, or personal experiences as influential sources. One teacher candidate wrote, "Past experiences and geography have a lot to do with people's knowledge and understanding" (TC, 43). The use of self-reflection to examine the roots of personal beliefs, assumptions, and biases were demonstrated in all eight reflection papers.

In one of the reflection papers, a teacher candidate associated her lack of knowledge about Indigenous peoples, cultures, and perspectives with her lack of contact with Indigenous peoples or communities. She wrote,

> I am a first generation Canadian, I grew up in Canada but until three years ago, I did not know what Canadian meant. I had no idea that Indigenous people in Canada faced such hardships, and I had no idea that the crisis was ongoing.…My experience with the Aboriginal community was very limited before I came to Lakehead University.…We were ignorant to the presence of Indigenous peoples in Canada because we had never come into contact with them ourselves. (RP, 2)

Though she believed that her awareness of Indigenous communities was limited, a position that Dion (2007) has described as the "perfect stranger." It was possible that the teacher candidate's exposure to Indigenous courses in University caused her to be more aware of the presence of Indigenous peoples, cultures, and perspectives in Canada. She further explained that through relationships with Indigenous people and academic courses, she has learned about historical traumas and the impact of trauma on Indigenous peoples and communities today.

In a different reflection paper, the teacher candidate shared an account of how quickly he formed a negative judgment against all First Nation people. He wrote that on his first day in Thunder Bay, Ontario, he witnessed a First Nation man being arrested for public intoxication. He described the impact it had on him, writing, "Within the course of three minutes, I had already passed judgment not on just one individual, but all of the First Nations [people] living in Thunder Bay" (RP, 1). In his reflection paper, he further unpacked his experience and began to articulate how long it took him to let go of this prejudice. He used self-reflection to acknowledge and evaluate what his personal beliefs and general attitude were towards First Nation peoples living in Thunder Bay. By engaging in a process of self-evaluation, he demonstrated self-awareness of his beliefs and prejudices, and an understanding of the importance of examining the roots of those beliefs and prejudices to change his attitude towards Indigenous peoples.

It was evident from the reflection papers and the open-ended question responses that the student was not alone in his realization that many beliefs and assumptions were in need of re-examination in order to identify hidden biases and prejudices. One teacher candidate wrote that the reflection paper "made me look back at my own beliefs and question them" (TC, 73). In another response, a teacher candidate wrote that self-reflection has helped: "To understand better why [teacher candidates] have the views they have and [be]come more aware of them" (TC, 79). One teacher candidate connected reflection with an examination of one's own social and cultural location, and responded:

> I think teachers are asked to think about their personal perspective in relation to First Nation, Métis, [and Inuit peoples] so they can consider their social location and the inherent privilege that is associated with majority groups, but most importantly, so teachers can relate First Nation, Métis, [and Inuit] culture[s] to their own culture. (TC, 80)

Our beliefs are shaped by our own social, political, or cultural experiences, and when left unexamined, they can become cemented in our minds as the "truth" with little understanding of the impact that this type of rigid mindset can cause in the classroom (Nuri-Robins et al., 2012). As was described, one experience of watching someone being arrested led to an unfair judgment against an entire First Nations community. Another teacher candidate shared her story of the impact that prior schooling had on her negative view of Indigenous classmates:

> I believe my negative schooling experiences rooted my negative perspective towards Indigenous peoples . ... From what I witnessed in school, my teachers seemed to underestimate the abilities of Aboriginal children, almost brushing them off because they were considered 'unintelligent'. . .. Most of my teachers became easily frustrated with the students, and throughout the year basically disregarded them completely. (RP, 6)

Her reflection on previous school experiences helped her identify harmful pedagogical practices. This type of self-reflection was useful in determining what were and were not inclusive teaching practices, and has the potential to aid in identifying and modifying one's own biases that influence teacher–student interactions.

Experiences in school or home can have either negative or positive influences on teacher candidates' perspectives on Indigenous peoples, cultures, and histories. A teacher candidate who began the course with a keen interest to learn shared how her parents' interest to learn influenced her personally. She explained:

> Both of my parents will often share with me their thoughts on different topics. Most recently my mom has been extremely engaged with the Truth and Reconciliation Commission Report. I have learned from my mom that Aboriginal people are still hurting, and that we all need to be a part of their healing. (RP, 7)

She expressed gratitude for the knowledge that her parents had provided but also acknowledged that more learning was needed: "I have so much more to learn as I am just beginning my learning journey." A willingness to learn as a teacher relates to positive teacher-student interactions in cross-cultural contexts (Oskineegish, 2015; Tompkins, 1998). Even so, numerous scholars warn that learning about other cultures can not be viewed as enough. Teachers must turn inward to examine how their perspectives or biases have influenced their teaching practices (Hammond, 2015; Nuri-Robins et al., 2012).

It can be shocking or uncomfortable to uncover deeply held prejudices, assumptions or biases. One teacher candidate wrote about her personal discovery in her reflection assignment: "I thought I was a very understanding person when it came to culture until I took classes at Lakehead [University] and found out that I still fed into absurd stereotype traps." She added, "Even though I was opened up to more diverse cultures as an adolescent, when I was young I grew up in a racist household" (RP, 5). Another teacher candidate provided this statement about

unpacking prejudices and biases: "Sometimes you think you are really open and understanding, but then you realize you're kind of racist. And you shouldn't be a racist teacher" (TC, 32).

Self-reflection in the Aboriginal Education course provided teacher candidates with a method of self-evaluation. Through the process of self-reflection, teacher candidates identified their beliefs, judgements, assumptions, and attitudes towards Indigenous students, and in some cases, incorrect beliefs, or negative judgments were identified and corrected through self-examination of prior experiences that initially shaped those beliefs and assumptions.

A Connection Between Personal Experience and Theory

Another type of response that emerged from the open-ended questions and reflection papers was a personal connection between prior experiences and course theory. This connection was largely evident in the reflection papers as this was part of the expectation for the course assignments. However, with 13 teacher candidates noting this in their survey responses and during class discussions, self-reflection was beneficial to at least one-quarter of teacher candidates by deepening their comprehension of course material through the inclusion of personal experience and understanding.

One teacher candidate responded that self-reflection activities "allowed me a chance to expand on and explain my thoughts" (TC, 75). Another wrote, "My reflection paper supported my learning because it gave me the opportunity to connect my personal ideas, thoughts and feelings to the required text readings," adding that "[self-reflection] brought the readings into perspective with real life" (TC, 38). As a benefit to learning, a teacher candidate wrote, "It made me critically read the paper because I needed to offer my perspective on it. It also made me want to read the paper instead of just skimming through it" (TC, 29). In a similar vein, another teacher candidate provided this description:

> I found the reflection papers from this class to be extremely beneficial. They allowed us to personalize the information and speak on the context as we would to a class. Being able to reflect on our knowledge and add to it is so valuable to teacher candidates. (TC, 69)

The connection between personal experience and course theory was articulated by teacher candidates as a beneficial process for personal learning in the survey responses and in-class sharing circles. In response to one of the assigned readings, a teacher candidate wrote, "I feel like I can relate to this and the experiences I had growing up. I grew up holding a negative assumption about people, even though I thought I was a very accepting person" (RP, 5). She further shared that in high-school she had initially judged and ignored new Canadians in her class, but then changed her mind-set about helping classmates during class assignments; she explained, "I really wanted to help them because I thought about how hard it would be for me to go to another country that did not speak English and receive no help from my classmates, only judgments" (RP, 5).

In another reflection paper, a teacher candidate connected a common myth that she had heard with one of the assigned readings:

> Another common judgment that is placed on Aboriginal people is that they are given everything for free without having to pay taxes. Through discussion with other people, it is evident that this is something that people see as a personal loss. People feel as if they

> are losing something only for Aboriginal people to gain. I connected this to the idea of interdependences in the article. Contrient interdependence involves people who think that one's gain will be another's loss. (RP, 7)

In another reflection paper, a teacher candidate explored the use of language in her assignments:

> A particular struggle within this discipline is the prominent use of blanket terms when referring to Native peoples. I myself am guilty of doing this, even just within this paper, terms such as Indigenous; Aboriginal; Native; and Indian are meant to make reference to all peoples and communities of the original inhabitants of North America. These terms don't aim to make specific reference to communities and their cultural differences but rather generalize the population to differentiate them as 'Native Canadians' from what is considered 'Canadian'. (RP, 3)

These examples of personal connections to class theory highlighted various ways in which teacher candidates personalized readings and course theory while engaged in self-reflection. Self-reflection assisted some teacher candidates to think more deeply about what they were reading and to connect theory with their own personal beliefs and assumptions.

In my position of participant-as-observer, I noticed that many of the teacher candidates appeared to speak openly during the non-traditional sharing circles that were used in both sections of the Aboriginal Education course. Teacher candidates spoke about the positive and negative experiences that shaped their views of Indigenous education in connection to course readings. Through this method of sharing that also promoted self-reflection, some teacher candidates commented that they appreciated participating in the non-traditional sharing circles, because they felt heard and respected. It is important to note that the learning environment and the type of instructional strategies used can impact teacher candidates' willingness to engage in self-reflection activities throughout a course. In this course, the instructor's experience with sharing circles may have aided teacher candidates' willingness to reflect and share.

Developing a Culturally Inclusive Pedagogy

Seventeen teacher candidates referred to the development of a culturally inclusive pedagogy. In these responses, teacher candidates discussed the integration of Indigenous content, Indigenous students, or inclusive teaching practices in a multicultural classroom. In connection to integrating Indigenous content, one teacher candidate provided this response: "It's important for us to think about our perspectives because when we become teachers we will be in charge of teaching Aboriginal Education and how we incorporate it into the curriculum" (TC, 26).

Of equal concern were teacher-student interactions. In response to self-reflection activities, a teacher candidate wrote: "Social interactions shape how people see themselves. If a teacher has a negative perspective of Aboriginal people[s], it will affect how they interact with their students which can in turn affect their sense of identity" (TC, 44). From the 17 responses relating self-reflection to culture, eight directly discussed teaching Indigenous students or integrating Indigenous content. Nine teacher candidates referred to teaching in a multicultural classroom. In this context, a teacher candidate wrote: "As teachers, we must grasp the aspect of multiculturalism as it will be predominant later in the classroom. It is important to understand how to teach each child respectfully to their culture" (TC, 38). In response to the reflection

paper, one teacher candidate wrote: "I found the reflection papers helpful for critically thinking about how I am going to help students with or without an Indigenous background. It caused me to rethink about what I should be doing to help students" (TC, 31). In these examples, self-reflection was described as a way to develop pedagogy in general, not just in Indigenous education.

Acknowledging culture in the classroom was discussed in a few of the reflection papers. In one teacher candidate's paper, she explored the inadequacy of integrating a lesson or two on cultures. She wrote:

> It is the teacher's job to accommodate and allow students to feel welcome and comfortable. A lot of my teachers had a lesson or two about culture. In my food and nutrition class we cooked foods from various cultures; in my English class we read poems about cultures for one or two periods. Although this is a great start, I feel like that is all it is—a start. …. Culture to me is limited; there was so much to learn but it was only incorporated into a couple of lessons and never really expanded upon." (RP, 5)

The overall role of reflection was described by teacher candidates as a process to examine and uncover false ideas or stereotypes of Indigenous peoples, cultures, or perspectives. The majority of the teacher candidates recognized the importance of looking inward when thinking about how to develop a culturally inclusive pedagogy, and, although it is unknown how this experience has influenced them in their teaching career. It can be a good start (Hammond, 2015; Nuri-Robins et al., 2012). Through informal discussions with teacher candidates in both sections of the course, it was clear that teacher candidates were split in their career goals. While some planned to remain in Northwestern Ontario, others planned on teaching in urban schools in southern Ontario, which are more culturally diverse. This information helped explain why so many of the teacher candidates referenced multiculturalism in a survey on Indigenous education.

Challenges of Self-Reflection

Though 28 of 35 teacher candidates appreciated self-reflection assignments in the course, seven teacher candidates stated that they did not find the assignments useful to their teacher preparation. These teacher candidates described some of the challenges that they encountered in completing the reflection papers, from unclear guidelines or expectations to a personal dislike of the paper's integration of assigned readings alongside personal discussion. One teacher candidate thought that the marking scheme did not align with the reflection paper's expectations, making this point: "Marking scheme seemed to value a commentary of the readings over identification of our pedagogy" (TC, 80). Another teacher candidate found the reflection paper's expectations confusing, and wrote: "I found them difficult to write, because I was not fully sure what was expected of me" (TC, 82).

With the emphasis on self-reflection, one teacher candidate was unsure how they would incorporate "what I learned in this class to what I will be teaching" (TC, 83). Every student responds to assignments differently. While one teacher candidate appreciated the catalyst to critically read course texts, another teacher candidate felt the combination of course readings and personal perspective caused them to lose focus in the reflection paper.

The teacher candidates who expressed dissatisfaction with the reflection paper assignment did not object to the use of self-reflection and provided a definition of the benefits of

self-reflection in the Aboriginal Education course. Still, the challenges identified by some teacher candidates echoed the lack of clarity surrounding the purpose of self-reflection addressed in the literature (Russell, 2013). This suggests that instructors must recognize that not everyone will respond with the same eagerness to, or understanding of, self-reflection and its purpose in teacher preparation. Another possible reason that some teacher candidates may have been critical of self-reflection assignments may stem from a personal discomfort of conversations on privilege, oppression, or racism (Schick & St. Denis, 2005). In this study, it is unclear if this was the case for teacher candidates in the Aboriginal Education course.

Discussion

The most frequent description of the role of self-reflection by teacher candidates was its use for self-evaluation. Teacher candidates participating in the study engaged in a process of self-evaluation of their own knowledge, awareness, or assumptions towards Indigenous peoples, cultures, and perspectives. This self-evaluation led some teacher candidates to conceptualize a direct connection between inclusive teaching practices and internal beliefs and assumptions. The use of comparisons and contrasts was evident in all eight reflection papers as each teacher candidate thought about how previous experiences had influenced their current knowledge or bias, and in some cases, promoted new ways of thinking about teaching that extended beyond their own experiences.

In describing self-reflection, 13 teacher candidates stated that it provided them with a process for creating a personal connection between their prior experiences and course theory. The personal connection was evidenced in various degrees in the reflection papers and during the non-traditional sharing circles. The process of drawing comparisons and contrasts occurred as teacher candidates tried to make sense of course theory through reflections on prior knowledge and experiences—a process that was also demonstrated with teacher candidates who used self-reflection to help in their development of a culturally inclusive pedagogy. Teacher candidates became mindful of beliefs and assumptions that they identified as a hindrance or assistance to their own ability to develop a culturally inclusive pedagogical practice and exemplified the practice of self-education that has been aligned with self-reflection (Schön, 1983; Tann, 1993).

In the written responses of the role of self-reflection, many of the teacher candidates provided more than one type of response. As previously mentioned, 22 teacher candidates identified more than one use of self-reflection, while two identified all three themes described in this paper, and 12 teacher candidates referenced only one of the themes. In the context of the Aboriginal Education course, many of the teacher candidates demonstrated, in part, some of the internal tasks described by Hammond. Whether teacher candidates continue to expand on these skills in their teaching practice is unknown. It is possible that some teacher candidates completed the self-reflection tasks simply to complete the course. Yet, the fairly large number of teacher candidates who indicated that self-reflection was beneficial to their learning, supports the need for further research on the impact of self-reflection on teacher candidates. Future research on how self-reflection and self-reflective practices impact teacher candidates entering their teaching career would provide further evidence of its effectiveness.

The findings in this study highlight teacher candidates' use of, and perspective on, self-reflection in an Indigenous education course. Teacher candidates formulated their own descriptions of the role of self-reflection that reiterated existing claims made about self-reflection

in teacher education (Farrell, 2012; Rodgers, 2002; Tann, 1993), as well as the use of self-reflection in developing a culturally responsive approach to teaching (Gay, 2010; Hammond, 2015). The findings show that in an Indigenous education course, the use of self-reflection can provide teacher candidates with the tools to begin to uncover their beliefs, assumptions, and prejudices that impact their ability to integrate Indigenous content and develop inclusive teaching practices appropriately.

Conclusion

Preparing teacher candidates to be open to learning about integrating Indigenous histories, cultures, and perspectives in their curricula and building a pedagogical practice that is supportive of Indigenous students is very much needed in teacher education programs (Aveling, 2006; Mashford-Pringle & Nardozi, 2013). Providing teacher candidates with courses, workshops, or seminars on Indigenous knowledges and pedagogies in a cross-cultural frame is necessary but not sufficient. It is critical that through this process of learning teacher candidates must recognize and be accountable in professional practice for their reactions to Indigenous-based theories and content.

In this study, self-reflection was employed in several ways: an open-ended survey on the role of reflection in the course; in class reflection assignments by a small subset of students, and my reflections as participant-as-observer in the course. Overall, self-reflection was considered to be effective in allowing participants the means to self evaluate their knowledge, beliefs, and assumptions about Indigenous and non-Indigenous people through a process of comparing and contrasting. Some found self-reflection aided their ability to make connections between course theory and their own experience that assisted in developing a culturally inclusive pedagogy.

The self-reflection activities in this study had an overall positive impact on teacher candidates, but more understanding of the process and experiences of teacher candidates is needed, such as how the differences in programming and course delivery affect the experiences and outcomes for participants (9 versus 12 weeks; 1-year versus an integrated program; rate and pace of course delivery; differences in course content; pedagogical strategies and exposures). A clear definition of what the purpose of reflection is and an outline of what is expected in self-reflection assignments with theoretical rational in the syllabus may lead to fewer misunderstandings for teacher candidates new, or resistant, to self-reflection. The findings in this paper illustrate the potential impact that the practice of self-reflection has on teacher candidates in teacher preparation programs that focused on Indigenous education. Since many of the students are non-Indigenous teacher candidates these findings contribute to research of the issues that arise with professional preparation of non-Indigenous teacher candidates to teach both non-Indigenous and Indigenous students by integrating Indigenous content and pedagogical approaches into the curriculum.

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The Iglu and the Tent: Centring the Northern Voice in Mathematics Teaching

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Author's Note

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Abstract

We outline the broad epistemic tendencies of Inuit and Qallunaaq[1] teaching, in the context of a faculty member in the Mathematics department of a large, research-oriented Qallunaaq university. We argue that, against the recommendations of academic literature, historical support and personal experience, the South maintains a position of strong cultural assertiveness. Finally, we propose two shifts in position that centre the Inuit voice which are aimed at protecting the North and learning from it.

Keywords: Inuit; mathematics education

The Iglu and the Tent: Centring the Northern Voice in Mathematics Teaching

> *I don't know exactly what the year was but I was about 6-7 years old. We had to move to Pond Inlet from Mount Herodier. A teacher came down to our camp and told us that we had to go to school…We ended up in a tent near the river…Our grandpa in the winter would try to pick up some cardboard boxes and put them around and inside the tent, and when we had enough snow, he would build an iglu around the tent to keep us warm.*[2]
>
> -Apphia Kiliktee (Qikiqtani Inuit Association, 2013, pp. 27-28)

Epistemic Tendencies

In Pond Inlet, Nunavut, the Inuktitut term that corresponds roughly to the month of March is *Ikiaqpavvik*, meaning "when the sun is higher in the sky but still not too high." The term used in Igloolik is *Avunniit*, "when premature baby seals are born." The same term is used in Arviat, but refers to caribou calves, not seals (Oosten & Laugrand, 2017). These are descriptions, not etymologies; if the calves are born earlier in Arviat one year, *Avunniit* arrives sooner.

Local, deeply grounded relationships traditionally characterize knowledge and knowledge transfer in the Inuit communities of Nunavut. Experience is considered to be a prerequisite to knowledge, and context, a prerequisite to instruction. For that reason, the most honoured mode of teaching is storytelling by elders.

Saullu Nakasuk, an elder from Pangnirtung Bay, described the importance of experience in this exchange from an interview with students from Nunavut Arctic College: "I'm only telling you about what I've experienced. I'm not going to tell you about anything I haven't experienced… Even if it's something I know about, if I haven't experienced it, I'm not going to tell about it" (Oosten & Laugrand, 2017, p. 6).

In Samuel Johnson's recounting of Boyle, *testimony* is an arrow shot from a long bow; "the force of it depends on the strength of the hand that draws it" (Bloom, 1986, p. 375). In contrast, *argument*, whose force is undiminished by its source, is an arrow shot from a crossbow. In the Inuit tradition, learning is about long bows, not crossbows. As the interviewer Alexina Kublu (as cited in Oosten & Laugrand, 2017) writes in her introduction to interviews of elders:

> As each one has his or her own knowledge, it is absolutely essential to view this knowledge as related only to that particular elder. Once the source—more specifically, the name of the elder—is lost, the knowledge loses its roots and becomes devoid of much value to most Inuit (p. 13).

On the face of it, this is difficult to reconcile with Southern, or Qallunaaq, education, perhaps especially with Qallunaaq mathematics education.Mathematics itself, at least in the Qallunaaq canon, inclines toward the general, not the particular. It is important that the Pythagorean theorem is true for all planar right triangles, whether in 21st century Vancouver or in ancient Samos. The theorem's value derives from its universality, not from Pythagoras himself.

In this regard, Qallunaaq mathematics education tracks mathematics, at least in practice. Instructional strategies are acclaimed if they can be demonstrated to be widely applicable.

Teacher effect is acknowledged, but as something to be controlled for: "best practices" are the ones that achieve positive results despite teacher effect. This partiality for the general over the particular colours everyday conversations about teaching: "The problem with active learning," we hear in the faculty lounge, "is that it requires a special kind of teacher." It affects the tools of our trade. To construct a short assignment for a first-year university calculus class, for example, we might consult the list of learning objectives, look at assignments from previous versions of the course, select questions from an online repository of questions like WeBWorK,[3] and then post the assignment link on the class webpage where it will be accessed and graded automatically. These instruments—objectives, online question banks, automatic grading—all work because they save the duplication of efforts from instructor to instructor, and from one year to the next.

In short, where Inuit education has a local presupposition, Qallunaaq education has a global bias. The tendency of Inuit education is to scale down, and the tendency of Qallunaaq education is to scale up.

Academic, Historical and Personal Perspectives

The Inuit tendency is better.

The academic literature is unambiguous: mathematics teaching is ideally active (Freeman et al., 2014), cooperative (Duncan & Dick, 2000), student-centred (Walczyk & Ramsey, 2003) and small-scale (Tajima, 1998). Teachers matter significantly: instructor effect is not a bug, but a rich feature (Chetty, Friedman, & Rockoff, 2014; Gershenson, 2016; Hill, Blazar, & Lynch, 2015).

The historical literature also favours the small and local over the large and global. While the relationship between the modern Qallunaaq educational system and the demands of industry may be overstated (Watters, 2015), there is little doubt that the invention or persistence of the modern educational system's large-scale features is driven primarily by the pressure to teach more, not to teach better. The medieval university lecture in which rare books were read aloud to a group of students, was, in the absence of any copying technology beyond manual transcription, both innovative and empowering (Willinsky, 2018). The persistence of the lecture today is equivocal at best, and the best arguments in its defense are narrowly logistical (Bligh, 1972). Logistics also figure heavily in arguments for automatic grading, multi-section courses, even multiple-choice exams. Only a modern university would need to invent a computerized academic advisor (Laghari, 2014; Siegfried, Wittenstein, & Sharma, 2003).

Finally, our own experiences as university faculty members confirm what the research literature and the historical signposts suggest: large scale teaching is essentially concessionary. We teach small classes when we can, and large classes when we must; we scale down when we are allowed to, and scale up when we are forced to. There is a wide range of pedagogical settings for university math courses; and generally, the teaching that is most personally important to us—graduate mentoring, research seminars, upper-year Honours classes—takes place in the smallest, most personal settings. We may recognize that it is impossible for first-year students in "service courses" to be taught in these settings, but the reverse—to make graduate supervision more like teaching a large, centrally driven, multi-section course—is so plainly undesirable that it is never considered, except under duress.

Assertiveness and Advantages

Why then, despite the recommendations of academic research, historical guidance and personal experience, do we in the South favour the Qallunaaq model over the Inuit one? Overwhelming logistical pressure may be the ostensible reason, but it is not the complete story.

If it were the complete story, we would expect the stance of the Qallunaaq educator towards the Inuit educator to be slightly sheepish—the pose of someone who has something to learn. This may be the case at the level of individuals, but not at the level of institutions. Institutionally, all the assertiveness is in the South. Qallunaaq universities are the ones that host programs to improve education in Indigenous communities (Alberta Education, 2012). Qallunaaq researchers write papers on how Indigenous students can successfully navigate the borders between their "home culture" and "school culture" (Aikenhead & Huntley, 1999). Indigenous teachers go to Qallunaaq universities to be trained, and then return to their communities, presumably equipped with something new and valuable. These actions and systems are supported by the best intentions, but the flow of information is understood to be predominantly in one direction. The default assumption—which, to their enormous credit, authors such as Aikenhead and Huntley (1999) carefully acknowledge (p. 160)—is that the Qallunaaq model has something special to offer.

In contrast, consider Finland.[4] The Qallunaaq pose is deferential towards the Finnish educational model (Lombardi, 2005; Parsons & Beauchamp, 2012), and towards the Finnish mathematics education model in particular (Froese-Germain, 2010; Seaberg, 2015). There are no Qallunaaq university programs designed to equip Finnish mathematics teachers with skills to improve their communities.

One reason for this disparity is that the material contrast between Qallunaaq and Finnish communities, indicated by economic and demographic measures such as median income and common professions, is much less pronounced than the contrast between Qallunaaq and Inuit communities. In material terms, Qallunaat have less to offer Finns. But notwithstanding the fact that the responsibility for the material disadvantage of Inuit communities rests largely with Qallunaat, it is a fundamental error to mistake a material edge for a cultural one.

The first irony in the epigraph to this essay, the elder Apphia Kiliktee's recounting of her family's forced relocation to Pond Inlet, is how their relocation is announced: "A teacher came down to our camp and told us that we had to go to school" (Qikiqtani Inuit Association, 2013, p. 27). The sentence encapsulates a great deal: the premise of authority, the indifference of the directive, and above all, the teacher's assumption that "school" is a resource delivered from the South to the North. This is exactly the wrong way around.

Centring the North

In Canada, pedagogical assertiveness resides in the South, but the pedagogical advantage is in the North. The South has much to learn from the North—but care must be taken.

The history of Qallunaat acquiring things of value from the North is not a particularly happy one. It was the collapse of the fur trade that precipitated the forced settlement of Inuit in the first place (Marecic, 2000). More recently, the inequities of oil, gas and mineral extraction contributed to Nunavut surpassing Canada as a whole in per capita GDP, but also in rates of homelessness and substance abuse (Carlson, 2016).

The Inuit pedagogical tradition is intrinsically valuable but extrinsically fragile. It requires protection, with Inuit as the primary instruments of protection. The territory of Nunavut itself provides a philosophical precedent: in the 1970s and 1980s, the Inuit Tapirisat of Canada and the Tungavik Federation of Nunavut proposed the territory in an attempt to claim a voice in discussions about Northern land use (Marecic, 2000). The same voice is indispensable in discussions about Northern education.

Inuit describe the main themes of Northern education in the 2007 document *Inuit Qaujimajatuqanjit* (Nunavut Department of Education, 2007). The document lists no authors, but its first acknowledgements name almost 80 elders, and a key passage states that "the knowledge of the Elders is the foundation which guides the lives of Inuit" (p. 25). The document is not a curriculum guide. Instead, it outlines the principles underpinning the Inuit educational model: eight *Inuit Qaujimajatuqanjit* (Inuit ways of knowing) precepts, as well as the *maligait*, *atuagat* and *piqujat* (respectively, natural, cultural and communal laws) that place the precepts in local context. It is a document that diminishes its own role in education, and returns authority to the land and the people.

The first step in protecting this approach is to recognize that it is, in a sense, untranslatable. The Inuit model is *Inuit* above all. Its insistence on the small and the local is likely perplexing to many in the South whose own education has been steeped in generations of logistical compromise. Squeezing the best practices of the North into a package for the South would miss the point entirely.

When Apphia Kiliktee's family were relocated into a tent in the Pond Inlet settlement, her grandfather built an iglu around it. A tent is of limited use where winter daytime temperatures are typically below -30°C. An iglu, on the other hand, provides good shelter from the cold and the wind. An iglu warmed only by body heat and a *qulliq* is as warm as an enclosed, heated house. Most important of all, an experienced builder can make one in a few hours using only the snow within a few steps of the site. The tent provided to Apphia Kiliktee's family may have been, in its way, a marvel of scale: built from canvas made with American cotton, to a template designed in England, and manufactured in bulk to be shipped across the Commonwealth. But the iglu makes sense.

We propose two practices. First, the makers of pedagogical iglus should be valued for their experience and expertise, should never be compelled to instruct others how to make iglus, and should never be made to call something an iglu which is not. There is a useful parallel in agriculture, in the *appellation d'origine contrôlée* geographical designation used in France to protect, for example, the craft and autonomy of winemakers in Beaune. The underlying principle is the French concept of *terroir*—the understanding that the land and generations of winemaking in Beaune combine to produce something distinctive and valuable. Inuit education has a definite *terroir*; indeed, it is nothing without *terroir*. Inuit educators should be the ones who control its description and dissemination, and government policies should support them. For example, no pedagogical changes should be made in a Northern community without the consultation and full agreement of Inuit in that community, according to guidelines enforced by the territorial and national governments. Suggestions from the community—for instance, that students be assigned instructors who follow them through the system, as opposed to in the Qallunaaq system, where students pass through the courses or years to which instructors are assigned—should be taken seriously; and if adopted, resourced properly.

The second practice has to do with pedagogical change itself. As we argue above, Qallunaaq education has more to learn from Inuit education than the other way around. How should this learning occur?

The *appellation d'origine contrôlée* recognizing winemaking in Beaune stipulates that it is neither allowed, nor meaningful, to copy the techniques of the Beaune winemakers. Similarly, it should not be allowed, and it is certainly not meaningful, to copy wholesale the techniques of Inuit educators. What should be copied is the point of view. What does it mean in the Qallunaaq South to teach in deep context and in close relationships?

We should ask Inuit. Moreover, we should ask them like we ask the Finns: not with anthropological curiosity, but with a genuine recognition of excellence—and an additional understanding that the North owes nothing to the South. It is asking a great deal of librarians to lend books to people who tried to burn down the library.

Humble learning has disruptive consequences. For example, an authentic consideration of the Inuit model would diminish the emphasis on testability that colours so much of the current scholarship of mathematics teaching. Cutrara (2018) points out the clash of epistemologies in her essay "The Settler Grammar of Canadian History Curriculum": "[the Qallunaaq] understanding of the world must come from that which we can categorize and measure; if it does not, then it is not valid in our learning" (p. 261).

In sum, we propose to protect the North and to learn from it, and we propose that this must be done in a way that places Inuit in a position of strength.

Tent Teaching in Calculus

The crucial subtext is the weakness, upon review, of the Qallunaaq pedagogical position.

Every winter, thousands of students at Canadian universities learn about integrals. The integral is one of two central concepts in calculus, along with the derivative. Roughly speaking, it allows us to describe the area under a curve by adding up areas of thin cross-sections. As the cross-sections get thinner and the number of cross-sections gets larger, the approximations converge to the exact area under the curve. If the area is well-defined, the convergence point is the key: it will be the same regardless of the individual approximations, which are generally irrelevant.

Nevertheless, students also learn how to compute those approximations. There are multiple ways to do this, each with its own rule: the Left Endpoint Rule, the Right Endpoint Rule, the Midpoint Rule, the Trapezoid Rule, and Simpson's Rule. Each of the rules comes with its own error estimate, which answers the question, "How far off the actual area is the approximation?" A standard approach, which is used at the University of British Columbia, where I teach, is to derive one of the rules from scratch, and then simply to state the remaining rules and all of the error estimates as things to be memorized.

This is tent teaching. There may be excellent reasons to teach the approximation rules and error estimates; there certainly were, decades ago, before the wide availability of computing power. Stripped of context and handed out en masse, though, the approximation rules begin to look less like a lesson and more like a commercial product.

The consequence is that many students take calculus, but few gain any significant conceptual understanding of it (Epstein, 2013). The product is consumed, and we are increasingly convinced that consumption—tents for everyone—is success. It is our good fortune that there are people who retain the resourcefulness needed to ignore the tent and build an iglu. We have a great deal to learn.

[1] While *Qallunaaq* simply means "non-Inuit" (the noun is *Qallunaat*), the implied meaning here, as in common usage, is "settler Canadian" or "settler North American."
[2] This testimony is translated from Inuktitut.
[3] WeBWorK is an online assessment tool that allows instructors to construct mathematics assignments using premade question banks.
[4] To be precise, consider the non-Sámi communities of Finland. There are multiple parallels between the Sámi experience in Finland and the Inuit experience in Canada.

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