

**The Role of Self-Reflective Practices in an '*Aboriginal Education*' course
in Teacher Education**

Doctoral Dissertation

**Submitted in partial fulfillment of the requirements for the Doctor of Philosophy in
Educational Studies**

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Abstract

This study explores teacher candidates' and course instructors' experiences and perspectives of a mandatory *Aboriginal Education* course at Lakehead University's teacher education program. The study utilizes a mixed methods approach that combined a qualitative study that integrates tenets of arts-informed inquiry with a quantitative survey. The purpose of this study was to examine how self-reflective practices are used in helping teacher candidates increase awareness of their own beliefs, attitudes, and assumptions about Indigenous histories, cultures, and perspectives in a mandatory *Aboriginal Education* course. It also explores what five course instructors describe as effective instructional strategies or practices, and the impact of a mandatory course on teacher candidates' knowledge of, interest in, and attitudes towards, Indigenous Education.

Data were collected from multiple methods and procedures (i.e., 5-point Likert scale survey, open-ended questionnaire, one-on-one interviews, student assignments, and reflective journal), and multiple sources (i.e., teacher candidates, course instructors, and author's participant as observer role). Findings are presented in three research articles prepared for academic journals. Following the research articles is a discussion of data not addressed in the articles.

Article 1 discusses the purpose and impact of self-reflective practices from teacher candidates' perspectives, including as a method for self-evaluation, a method for creating a personal connection to course theory, or a method for developing a culturally inclusive pedagogy. In Article 2, five course instructors describe instructional strategies and assignments that they perceived to be most effective for the mandatory *Aboriginal Education* course in Lakehead University's teacher education program. Although each instructor had their own particular approach to the course, themes of *story*, *land*, *art*, and *reflection* emerged from their

examples and are discussed. Article 3 explores teacher candidates' knowledge of, interest in, and attitudes towards the mandatory *Aboriginal Education* course from teacher candidates' and course instructors' perspectives. While many teacher candidates indicate that they felt knowledgeable by the end of the course, course instructors caution that the knowledge and skills taught in the course are limited with more needed as teachers enter their professional career.

The dissertation concludes with recommendations about reflective practices in an Indigenous Education course, the integration of Indigenous Education courses in initial teacher education and professional development, and future research possibilities that may extend the findings that emerged from the current study.

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Chapter One: Introduction

In this chapter I begin with a brief statement on the purpose of this study, the research question that guides this study, and the influences that have led me to this topic. I provide an overview of the current education gap in Canada and discuss the role of teacher preparation in addressing the gap. I include an explanation of terminology and conclude with a personal reflection to situate myself as the researcher.

Research Purpose

This study seeks to support the academic achievement and well-being of Indigenous students in K-12 education by focusing on the preparation of teacher candidates enrolled in initial teacher education programs. The purpose of this study is to explore teacher candidates' knowledge of, interest in, and attitudes towards, Indigenous Education, and to examine how self-reflection and self-reflective practices impact their understanding of integrating Indigenous content and teaching Indigenous students. Self-reflective practices engage teacher candidates on a personal level while directly challenging their beliefs, attitudes, and assumptions about teaching and learning (Tann, 1993). This study explores how self-reflective practices are used in a mandatory *Aboriginal Education* course at Lakehead University's teacher education program to increase teacher candidates' awareness of their own beliefs, attitudes, and assumptions about Indigenous histories, cultures, and perspectives, and how this growing self-awareness can impact their understanding of integrating Indigenous content and teaching Indigenous students.

Research Questions

The research questions that guide this study are as follows: How are self-reflective practices used in a mandatory Indigenous Education course? What instructional strategies and practices are seen by instructors to effectively contribute to teacher candidates' understanding of Indigenous Education? And, what impact does a mandatory Indigenous Education course have on teacher candidates' knowledge and disposition towards Indigenous Education?

The focus of this study emerged from my own personal and professional experience living and working as a teacher in a First Nation community in northern Ontario and builds on the findings from my masters' study that explored how non-Indigenous teachers can learn to develop culturally responsive lessons in remote First Nation communities in northern Ontario (Oskineegish, 2013). The seven participants in that study, who were First Nation and non-Indigenous educators with extensive experience working in northern First Nation communities, identified 'who a teacher is as a person' and a 'willingness to learn' as a foundation for developing culturally responsive lessons and successful teacher-student connections in First Nation communities. I apply these findings within a teacher education program to investigate how teacher candidates' explorations of self-awareness affect their understanding of integrating Indigenous content and teaching Indigenous students. I did this by examining current and past *Aboriginal Education* instructors' use of self-reflective practices and current teacher candidates' responses to self-reflection in two sections of *Aboriginal Education* at Lakehead University's teacher education program.

The Canadian Education Gap

Indigenous peoples in Canada are the fastest growing population with a documented increase of 42.5% since 2006; four times the growth rate of the non-Indigenous population within the same timeframe (Statistics Canada NHS, 2017). The National Household [Census] Survey also found that the majority of the Indigenous population are young: First Nation children aged 14 and under account for 29.2% of the total First Nation population; Métis children in the same age group account for 22.3% of the total Métis population; and Inuit children fourteen years in age and younger account for 33% of the total Inuit population. These three percentages are all significantly higher than the 16.6% of non-Indigenous people who are 14 and under (Statistics Canada, NHS, 2017). Within Canada's Indigenous population there are significant gaps in the educational attainment and outcomes of many Indigenous youth and young adults. In the most recent report on Indigenous peoples' education attainment, Statistics Canada NHS (2017a) found that seven out of 10 Indigenous people have completed high-school and 10.9% have completed a postsecondary degree or diploma. While these numbers rose from under six in 10 and 7.7% in 2006, the overall percentage trails behind the 54% of total Canadian population with a post-secondary education (Statistics Canada NHS, 2017a). The report also notes that these numbers drop significantly for Indigenous adults living on reserve as only 5.4% have a post-secondary degree or diploma. These statistics do not account for the complex and diverse educational experiences of all Indigenous students, but they do provide an indication that for some Indigenous students the current school practices are not working and need changing (Nishnawbe Aski Nation [NAN], 2012).

Indigenous and non-Indigenous scholars concerned with the educational attainment of Indigenous students across North America have identified potential factors that affect a student's

chances of educational success, with factors outside of schools including: poverty, family income, employment, housing, and health status (Wotherspoon, 2014), and within schools: inclusion of appropriate Indigenous content, teacher-student relationships, and culturally responsive school practices (Battiste & Barman, 1995; Castagno & Brayboy, 2008; Kanu, 2011; Stonechild, 2006; Villegas & Lucas, 2002; Whitley, 2014). In addition to these school practices, Ojibwe/Odawa scholar Pamela Toulouse (2013) added teacher knowledge to this list, explaining that students are in dire need of Indigenous and non-Indigenous teachers who are knowledgeable and capable of contesting racism that permeates schools across Canada. The present dissertation research assumes the need for knowledgeable and understanding educators and explores how teacher candidates can develop this capacity while learning culturally responsive pedagogical practices that promote Indigenous student achievement.

Teacher Preparation

The call for non-Indigenous teachers to develop teaching practices that are appropriate for Indigenous students is nothing new. Over 40 decades ago the Assembly of First Nations, previously known as the National Indian Brotherhood, developed a policy paper entitled *Indian Control of Indian Education* (NIB, 1972). In it they addressed the necessity for improved preparation of non-Indigenous teachers and counselors, stating that:

The training of non-Indian teachers for teaching native children, either in federal or provincial/territorial schools, is a matter of grave concern to the Indian people. The role which teachers play in determining the success or failure of many young Indians is a force to be reckoned with. In most cases, the teacher is simply not prepared to understand

or cope with cultural differences. Both the child and the teacher are forced into intolerable positions. (p. 19)

This statement is reiterated in the *Truth and Reconciliation Commission: Calls for action* (TRC, 2015), which recently called for changes to be made in the current Canadian education system and in teacher preparation (p. 7). The report recommended that the Canadian education system develop resources on the history of First Nation, Métis, and Inuit people; create and integrate resources on the history and legacy of Residential Schools; build student knowledge and understanding of Aboriginal history; and ensure that teacher education programs prepare teachers to be able to enact these recommendations in their teaching practice—a recommendation that directly relates to the purpose of this study.

In teacher education programs across Canada, there are instructors who are committed to providing teacher candidates with knowledge and skills to incorporate Indigenous histories, cultures, and perspectives into their teaching practice (Blimkie, Vetter, & Haig-Brown, 2014; Cannon, 2012; Dion, 2007; Iseke-Barnes, 2008; Kovach, 2013; Mashford-Pringle & Nardozi, 2013; Scully, 2012; Wolf, 2012) and yet, even with commitments to increase Indigenous content, there remains the challenge, within the brief time frame of initial teacher education, of ensuring that teacher candidates begin their teaching career knowledgeable, willing, and capable of supporting Indigenous students and integrating appropriate Indigenous content. This difficulty increases substantially when teacher candidates arrive with very little knowledge of Indigenous histories, cultures, and perspectives prior to enrolling in teacher education (Cannon, 2012).

Indigenous Education courses or workshops in teacher education programs struggle to provide teacher candidates with the extensive and diverse histories, cultures, and perspectives of Indigenous communities, as well as how to incorporate these new knowledges into their

pedagogical practices (Cannon, 2012; Kovach, 2013; McInnes, 2017). What can be done is to focus on providing teacher candidates the knowledge, awareness, and understanding of why learning Indigenous perspectives and culturally responsive teaching practices are a foundation for student learning. Wotherspoon (2014) wrote that “teachers, like students, are central agents in educational processes” (p. 160), and as central agents it is vital that teacher candidates are provided with the knowledge and guidance to enact culturally responsive pedagogical practices that are appropriate to the students they teach.

In addition to Indigenous content, many instructors in teacher education programs have found that a focus on racism, culture, and the normalization of White privilege or Whiteness is central to Indigenous Education courses (e.g., Cannon, 2012; Dion, 2007; Scully, 2012). Sensoy and DiAngelo (2012) define Whiteness as the “specific dimensions of racism that elevate White people over people of Color. Basic rights, resources, and experiences that are assumed to be shared by all, are actually only available to Whites” (p. 119). The challenge of addressing White privilege and Whiteness is that the normalization of racial superiority, or Whiteness is often invisible to those who are White in Western societies (Burleigh & Burm, 2013; Madden, 2017). The task in teacher education, then, becomes making the invisible visible for White teacher candidates (Cannon, 2012). There are many scholars in racial literacies who capitalize the terms ‘White’, ‘Whiteness’, and ‘White privilege’ to draw attention and break the invisibility of Whiteness (e.g., Carr, 2016; Sensoy & DiAngelo, 2012; Solomon & Daniel, 2015). This current study aligns with this purpose and uses capitalization of the terms stated previously.

Studies have shown that teachers who are cognizant of the impact of culture, racism, and the normalization of whiteness in the Canadian education system are more willing to take personal initiatives to incorporate teaching practices that are culturally inclusive and responsive

to the students they teach (Mogadime, 2011; Solomon, Singer, Campbell, Allen, & Portelli, 2011). Preparing teacher candidates to be open and willing to continue learning while in their professional career is a foundation to developing cultural competence, especially in schools in Indigenous communities (Taylor, 1995; Tompkins, 1998). As a principal in an Inuit school, Joanne Tompkins (1998) found that it was the teachers' attitude towards the students and the community that determined whether they would engage in responsive and appropriate teaching practices. She explained that:

If a teacher lacked skills, I usually could help them gain the skill. If he or she didn't know how to teach long division I could show them that. But when a teacher had an underlying 'bad attitude' about the children that he or she was working with I had a much harder time knowing how to bring that attitude to the surface and examine it. (p. 104)

Teacher education programs can provide knowledge of Indigenous cultures, histories, and perspectives, and yet, Gay and Kirkland (2003) argue that what is most important is teacher preparation that develops teachers who are open and willing to further their learning of the specific students they are teaching.

Scholars who have investigated 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; Tann, 1993). In this study, the use of self-reflection and self-reflective practices to increase teacher candidates' knowledge, awareness, and understanding of Indigenous histories, cultures, and perspectives is investigated as teacher candidates completed the required *Aboriginal Education* course in Lakehead University's teacher education program.

Terminology

Indigenous & Non-Indigenous. In Canada, there a number of terms used to refer to Indigenous peoples. These include Aboriginal, First Nations, Native, Indian, and Indigenous (Indian and Northern Affairs, 2002). In this dissertation, I use the term Indigenous as it is the most common and accepted term used internationally and is used by the *United Nations Declaration on the Rights of Indigenous Peoples* (2007). The term Indigenous peoples, refers to the people who “inhabited a country or a geographical region at the time when people of different cultures or ethnic origins arrived” (United Nations Fact Sheet, n.d.). Conversely, non-Indigenous is used to refer to the diversity of people who are other than Indigenous (Kanu, 2011).

Aboriginal. The use of the term Aboriginal in Canada refers to the collective groups of First Nation, Métis, and Inuit (the Constitution Act, 1982). Although this term is accepted by some, it is only used in this dissertation when referring to Lakehead University’s course title *Aboriginal Education* and when referenced in others’ work. When working with teacher candidates in the *Aboriginal Education* class I used the terms: First Nation, Métis, and Inuit (FNMI) instead of Aboriginal or Indigenous to affirm the diversity amongst the Indigenous populations in Canada. Maori scholar Linda Tuhiwai Smith (2012) wrote that homogenous terms such as “Indigenous” and “Aboriginal” “collectivize many distinct populations whose experiences under imperialism have been vastly different” (p. 6). In Canada, Anishinaabe scholar Rebecca Chartrand (2012) has also cautioned against the use of homogenous terms in education, explaining that terms such as *Aboriginal Education* “overshadow and simplify the diversity that exists amongst Indigenous nations in Canada” (p. 145). One of the underlying goals of this study is to discourage homogenous views of FNMI cultures, peoples, and communities. And it is with

this aim that appropriate and specific terminology was used for people, communities, and regions when possible.

Format of this Dissertation

This dissertation combines an alternative and traditional academic format, beginning with the standard academic introduction, literature review, and methodology chapters. The methodology chapter includes descriptions of the participants, and methods used for data collection and analysis. An alternative format is used for the findings chapter and is comprised of three research articles. This is followed by two chapters that cover the findings not addressed in the research articles and the recommendations that emerge from the current study.

In preparing the research articles within the findings chapter, I followed the guidelines of their intended academic journal. The intention of these research articles is that each article stands on its own, and as such, aspects of the literature review, methodology, analysis, and overview of the study are similar.

The alternative format provides two advantages: first, it encourages a quicker dissemination of the findings as the findings are written for immediate publication, and second, it provides experience writing beyond the academic institution, and is specifically for academic publication (Thomas, 2015). Each research article addresses a particular theme from the findings: Article 1, *Uncovering implicit biases: The role of self-reflection in an Indigenous Education course*, explores teacher candidates' perspectives on the purpose and impact of self-reflection in the mandatory *Aboriginal Education* course. Article 2, *Effective instructional strategies in an Indigenous Education course in initial teacher education*, discusses five course instructors' perspectives on effective instructional strategies and assignments in the course, including self-

reflective practices, and, Article 3, *Teacher candidates' knowledge, interest, and attitudes towards a mandatory Aboriginal Education teacher education course*, examines teacher candidates' knowledge of, interest in, and attitudes towards Indigenous Education from teacher candidates and course instructors' perspectives.

The dissertation concludes with a brief discussion of themes and data collected that were not included in the research articles, how those themes offer data for further writing, and direction for future research possibilities. The final chapter presents a summary of the recommendations that have emerged from this study and concludes with an overview of how the findings in this study contribute to literature on Indigenous Education in teacher education.

Significance of this Research

This study contributes to literature on culturally responsive teaching (Gay, 2010; Hammond, 2015), Indigenous Education in initial teacher education (Aveling, 2006; McInnes, 2017), and self-reflective practices in teacher preparation (Gay & Kirkland, 2003; Tann, 1993). The qualitative and quantitative methods used in this study explore how self-reflective practices are used to promote self-awareness for teacher candidates in a teacher education program. The quantitative aspect of this study will contribute to literature on teacher candidates' knowledge and disposition towards Indigenous Education (Aveling, 2006; Blimkie et al., 2014; Nardozi, Restoule, Broad, Steele, & James, 2014). One of the claims made by prior studies on this topic is that the majority of White teacher candidates have very little knowledge and understanding of Indigenous cultures, histories, and perspectives, and have a lack of understanding of the dynamics of White privilege, racism, and oppression. The findings from this study have, to some extent, confirmed this. This study has provided multiple perspectives on the use of self-reflection

for teacher candidates' teacher preparation in Indigenous Education. It also provides multiple perspectives on the design and impact of Indigenous Education courses in teacher education that may impact future Indigenous Education courses in teacher preparation and seeks to contribute to previous literature on Indigenous Education courses (Aveling, 2006; Dion, 2007; Iseke-Barnes, 2008; Scully, 2012). Before I discuss this connection in more detail in the literature review, I provide a reflective piece that situates my personal, professional, and academic experiences that have influenced the development of this study.

Situating Myself

Nêhiyaw and Saulteaux scholar Margaret Kovach (2009) has described self-location as having multiple purposes and benefits that include: cultural identification; clarification of knowledge and perspective; and, a method for building reciprocity between researcher and the researched. Self-location can also be used to relate the researcher's purpose and motive beyond the research question and statement. Kovach (2009) wrote that "researchers need to know their personal motives for undertaking their research" (p. 114), adding that this undertaking is often found through the sharing of one's own personal stories. My interest in this topic and the development of this study is grounded in who I am as a person and my life-experiences as a student, teacher, and parent. The following personal narratives explicate my personal, professional, and academic experiences that relate to the purpose and motive of this study.

Self-location. I am a Euro-Canadian woman who was raised in a rural farming community in southern Ontario. I currently live with my husband, who was raised in a remote Oji-Cree community in northern Ontario, and our three boys in an urban city in northern Ontario. Before moving to our current location, we lived in a remote northern First Nation community.

Part of the reason our family decided to move to an urban city was to access further education that was unavailable in the community. Many First Nation families from northern Ontario only have access to K-8 schools and have limited options for secondary and post-secondary education. Families are forced to send their youth to live away from home to receive an education beyond grade eight (NAN, 2012). Some families are able to move with their teenagers or will find a way to send a family member to live in the city to care for them, while others must send them to live with strangers in boarding homes. It can be a difficult transition for families to leave their communities and re-locate—demonstrating the extreme efforts that many families endure to ensure that their children have a chance at achieving a secondary and post-secondary education.

Personal influences. Watching my sons attend urban schools has been an eye-opening experience for me. In my own experience of school, I was not fully aware of the extent of racism in schools and the impact it had on students. As a Euro-Canadian student, I had not been the recipient of racism, discrimination, or prejudice based on the colour of my skin or my cultural heritage. I thought I knew what these words meant; I have since realized that there is a distinct difference in knowing that comes from personal experience.

As my sons navigated through the school system I began to see how a lack of personal experience or understanding of being the recipient of racism, prejudice, and discrimination could hinder a teacher's ability to recognize and respond appropriately when it occurs in school. I saw this first hand when one of my sons entered high-school and came home upset over racist remarks made by his classmates in gym. I called the teacher to let him know what was said by some of the students; unfortunately, it was clear from the conversation that nothing was going to happen to change the hostile environment. The teacher proceeded to let me know that in his experience there were no problems related to racism in their school. I was shocked by his

response but have since reflected on why he and many other teachers struggle to see that racism does continue to exist in schools. I wondered if part of the reason that some teachers are unable to acknowledge racist practices is due to their lack of experience knowing what it looks like or feels like for First Nation students. This led me to ask myself: 'How can a teacher become cognizant of the needs of students whose experiences differ from their own?' And, 'How can teachers learn to respond to students when they do not know the racism, prejudice, and discrimination they are responding to?'

My sons have had mixed experiences at school with moments of support and encouragement, alongside experiences of discrimination and racism from peers and educators. I have listened to their stories and the stories of their friends, trying my best to understand and relate to their experiences. In hindsight, I do not think I initially responded with as much understanding and, thus, awareness as they needed, though, over time, through reflection on my own experiences and understanding of their experiences I strive to be better able to understand and respond to their concerns and experiences.

A reflection on inclusion. As a White Canadian with an English heritage, I had numerous experiences of cultural and racial inclusion throughout my education. These experiences were so much a part of my daily life that they were the norm, and what I came to expect from schooling. In one example, I can remember when I was a student in middle school completing an assignment for my Canadian history class and found in the school textbook an entire section on a man who shared my family name under the subject title 'influential Canadians.' I shared my discovery with my parents and felt further pride when they told me that we were direct descendants of this 'influential man' chronicled in the textbook. To see my own family lineage within a school textbook brought a sense of pride and value to my growing sense of self. It never

occurred to me until much later that not all students experience accurate inclusion of their cultural heritage in school.

Reflecting on this personal experience and the experiences of my sons helped me to understand the ways that school can be contentious and hostile for some and encouraging and uplifting for others and has helped me to begin to understand the complexity of experiences of discrimination in schools. This reflection has also helped me to think about how my personal experiences impacted the choices I made as a teacher.

Professional influences. In 2005, I began my career as a teacher in a remote First Nation community in northern Ontario teaching a split 7/8 grade. One of the lessons that I learned as a teacher was the importance of developing lessons that valued students and their families. I had noticed a significant lack of relevant resources in the classroom and school. Even though the school was a community operated school, many of the curriculum expectations and school resources were based on the Ontario Ministry of Education curriculum. The textbooks had very little connection to the students that I was teaching, and the teacher guides had unrealistic resource lists for an isolated community. As I tried different approaches, I noticed that the lessons that built on the knowledge and history of the students achieved the most student interest and engagement from the students. In one example, I had assigned a homework project that had students ask at least one family member about the community fire that occurred before the students were born. Students were to take notes and share what they had been told. The response was incredible; students who struggled with their writing handed in full-page reports without reminders, and each student enthusiastically announced the family member who shared their story.

The following year I developed a literacy assignment that focused on the community political system. I had asked the entire class to brainstorm questions that they would like to ask the community's Chief and Council members. After compiling a list of questions, I arranged for a class excursion to meet with the current Chief and Council during which students asked their questions, which included: the role and authority of Chief and Council; how decisions were made in the community; how housing lists were made, and many more. All of their questions were answered, and the Chief and Council thanked us for initiating the visit and asked if they could come to our class later in the year to continue the connection between our class and Band office. The students radiated with joy and excitement after returning to our classroom, and the classroom Education Assistant kept smiling and saying that she had never seen the students so excited before. This response was completely unexpected and was empowering for everyone. In those moments, it was clear to me that school work that was relevant to the students was a vital piece of successful education practices.

I did not begin my teaching career with this knowledge and capability. The lessons that I developed came from the help of my colleagues who were First Nation community members and non-Indigenous educators with extensive experience teaching in First Nation communities. When I first arrived in the community, I naively thought that my knowledge and preparation for teaching was all I needed to know. The set up of my classroom, the daily schedule, rules, and the instructional strategies and the learning experiences that I developed were all typical of a Westernized school system—one that was very familiar to me. It was not until my first couple of weeks of teaching that I began to realize that the students were struggling to follow my instruction, and I could see in their responses that they were upset by their inability to connect and complete the lessons that I was providing. I wanted the students to feel good about coming to

school and about their learning capabilities, and that meant that I was going to need to find out what I was doing wrong and what I needed to change. I began speaking to my colleagues about how I could improve my teaching practices. I tried to listen and implement their advice, and though I will never claim that things went smoothly from then on, I was able to begin a path of learning for the betterment of my professional practice and for students.

Academic influences. When I began the Masters' of Education program at Lakehead University, I found that the course readings and class assignments encouraged me to reflect on my experiences as a teacher. This experience prompted me to develop a study that explored ways that non-Indigenous teachers can learn to develop successful learning experiences for northern First Nation communities. I went back to many of the educators who had guided me and asked them to share their experiences and advice on what they believed non-Indigenous teachers needed to know to develop successful lessons for remote First Nation communities. The main ideas and themes that emerged included: *who* the teacher is as a person; the importance of building reciprocal relationships; understanding the role of the 'visitor' in a community; the importance of learning Anishinaabemowin (Native language) and land-based activities; and, developing meaningful educational practices through self-reflection, communication, community engagement, and the right kind of attitude (Oskineegish, 2013). I was surprised by participants' responses that connected best practices with *who* the teacher is as a person, and willingness to learn while teaching. I decided to explore these concepts further in a teacher education program and with all teacher candidates, not just with those interested in remote northern communities.

Building on the themes that emerged from the experienced educators in my master's study, and from my own personal and professional experiences in cross-cultural relationships, the current study examines how self-reflective practices in a mandatory *Aboriginal Education*

course impact teacher candidates' understanding of integrating Indigenous content and teaching Indigenous students.

Chapter Two: Literature Review

In this literature review I look at the theory and practice of Culturally Responsive Teaching (CRT) for Indigenous students (Castagno & Brayboy, 2008; Maguire & McAlpine, 1996; McMillan, 2013; Villegas & Lucas, 2002), and the current implementation of Indigenous Education in teacher education programs. I do this to situate my work on reflective practices in Indigenous Education in teacher education and to argue for its significance. I begin with a brief description of the major components of CRT (i.e., foundational knowledge), that need to be considered when adopting a culturally responsive approach to teaching and an overview of the theory and practice of CRT as it emerged from anthropologists in the 1950s and 60s and from multicultural education scholars in the 1980s and 90s. I follow this with a review of the three major components of CRT, (i.e., foundational knowledge, self-awareness, and relationships) and how each component can potentially be integrated into teacher education programs. Even though I place foundational knowledge, self-awareness, and relationships in three distinct sections, all three are of equal importance with numerous places of overlap. The literature review concludes with a look at the successes and challenges of teaching Indigenous Education in teacher education programs, the need for self-awareness within Indigenous studies, as well as how my study is situated within the current research on CRT and self-reflective practices in teacher preparation.

The Three Major Components of Culturally Responsive Teaching

The first component of CRT is the importance of building a foundational knowledge of Indigenous histories, cultures, and perspectives (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). The knowledge within this component differs from knowledge gained from specific Indigenous communities because it is knowledge of events that impact First Nations, Métis, and Inuit throughout Canada, such as the history and impact of the Canadian Indian Residential School system (Miller 2003; Reagan, 2010; TRC, 2012).

The second component of CRT 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 the section on self-awareness, the use of reflective practices is reviewed as a method for promoting self-awareness and self-knowledge in teacher education programs (McIntyre, 2000; Rodgers, 2002).

The third component of CRT is 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, it is the relationships between a teacher and students, parents, and community members that form the foundation for understanding who a student is, and that expose a teacher to specific experiences and knowledge that can be drawn upon in lesson development. It is relationships

with people, not objects, that are the heart of understanding what culture is (Curwen Doige, 2003).

Culturally Responsive Teaching

The term culturally responsive teaching (CRT), also referred to as culturally relevant pedagogy, was coined by Gloria Ladson-Billings (1994) in her three-year ethnographic study that examined the successful teaching practices of teachers of African American students (Brown-Jeffy & Cooper, 2011). Emerging from her findings, she designated the term culturally responsive pedagogy for the “theoretical model that not only addresses student achievement but also helps students to accept and affirm their cultural identity while developing critical perspectives that challenge inequities that schools (and other institutions) perpetuate” (Ladson-Billings, 1995a, p. 469). 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 current study is 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.

Though parts of CRT theory have been compared to previous research that promoted cultural difference theories in the 1950s and 60s (Dubois, 1955; Hawthorne, 1967; Mead, 1951), the current position of CRT is primarily associated with educational scholars in multicultural education in the 1980s and onward (Erikson & Mohatt, 1982; Gay, 2010; Hammond, 2015; Irvine, 1990; Ladson-Billings, 1994, 1995a, 1995b; Lipka & Mohatt, 1998; Villegas, 1988; Villegas & Lucas, 2002). The main position of multicultural education and CRT scholars is that

schools, which are operating primarily from White, middle-class cultural frameworks, have failed to provide educational policies, programs, and practices that reflect the cultural background and ways of learning of African American, Latino, and Native American students (Gay, 2010; Howard, 2003; Ladson-Billings, 1995a; Villegas, 1988). This results in widespread underachievement that has clear divisions, associated with cultural heritage and socio-economic status, as to who benefits from formal education and who does not (Howard, 2003).

The purpose of CRT is to eliminate cultural incongruence and increase the academic achievement of culturally diverse students by providing students an education that is both “validating and affirming” (Gay, 2010, p. 31). A CRT approach to education does not view cultural difference as a disadvantage; instead, it believes culture to be a source for pedagogical knowledge and content (Hammond, 2015). Gay (2010) explained that CRT uses the “cultural knowledge, prior experiences, frames of reference, and performing styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (p. 31). 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). She recommended that teachers learn from their students in order to develop a teaching pedagogy and instructional content that is familiar to the students they teach. This recommendation is especially important when a teacher’s cultural, ethnic, religious, or economic background differs from their students.

In the early 1990’s, anthropologist John Ogbu challenged cultural difference theory by claiming that not all minority students and students of colour needed cultural familiarity in

school to succeed academically. In Ogbu's (1992) comparative study he described the different academic responses of minority students in schools in the United States and categorized minority students into 'immigrant or voluntary' or 'castelike or involuntary'. He explained that 'immigrant or voluntary minorities' are people who have moved to another country voluntarily with the motivation and desire to improve their economic, political, or personal wellbeing and freedom. 'Involuntary minorities' are "people who were originally brought into the United States or any other society against their will. For example, through slavery, conquest, colonization, or forced labor" (p. 8). He found that the response to school and academic attainment differed significantly from students from voluntary and involuntary groups. He wrote that most voluntary minorities do well academically and overcome initial difficulties in school as they have an internal desire to overcome cultural and language barriers, whereas involuntary minorities, such as African Americans, early Mexican Americans in the Southwest, and Native Americans are more likely to experience "greater and more persistent difficulties with school and learning" (p. 8). He explained that oppressed groups have developed their own theories, which he refers to as 'folk theory', for personal achievement and success that differs from White, middle-class society's ideas of academic achievement and success.

First Nation scholar Hookimaw-Witt (1998) did not agree with Ogbu's (1992) explanation of underachievement for Native youth, pointing out that Native Americans were not brought into America like other cultural groups, nor did they develop a cultural 'folk theory' arising from their oppressed position. She explained that Native people in North America already had an established culture before Europeans arrived; a culture that included practices and beliefs towards achievement and a good life. She concluded that Native youth struggle in Western education systems as a result of the system's active and systematic methods to eradicate Native

culture, beliefs, and practices. She advocated for an education system that is based on Native culture, not Westernized culture, in order for Native youth to be given the chance to succeed academically. This type of education system is one that works within and with respect for the culture and experiences of students. For Hookimaw-Witt (1998) and scholars within the field of CRT, the root problem of student dropout is the cultural operation of schools and not the students or their cultural affiliations or beliefs.

There are some scholars who raise concerns about research on CRT and other culture-based theories (Brown-Jeffy & Cooper, 2011; Schmeichel, 2012; St. Denis, 2009). They worry that the association of cultural difference with student failure resembles educational anthropologists' work in the 1950s and 60s that viewed cultural difference as a disadvantage (Dubois, 1955; Hawthorne, 1967; Mead, 1951). Early research on cultural difference claimed that "racialized minority children failed in school because their cultural beliefs and practices predisposed them to failure" (St. Denis, 2009, p. 164). These early research findings on the culture of students of colour were always in comparison to the position of White middle-class culture as the norm (Schmeichel, 2012). A student's ethnicity, cultural affiliation, and class were thought to be the cause for the student's difficulties in schools. This belief not only placed White middle-class culture as the norm but also relieved educational institutions of any responsibility for the resulting inequalities in schools (St. Denis, 2009).

I do not share these concerns, as multicultural and anti-racism education scholars in the 1980's and 90's began shifting the deficit view of students by focusing their attention on the cultural operation of schools as the cause for student failure amongst culturally diverse and low-income students (Banks & Banks, 1993; Brandt, 1986; Dei, 1996; hooks, 1994). Their work brought forward the notion that schools must transform and restructure their cultural operation in

order for students from diverse heritages and ethnic groups to experience equity (Banks, 2015). The main body of work in CRT arose from the literature within multicultural and anti-racism education, especially as the focus on the teacher to develop a culturally conscious and responsive teaching approach emerged (Gay, 2010; Ladson-Billings, 2000). And yet, there remains a concern by some scholars that the focus on culture and cultural awareness alone is not enough when it does not include a critical examination of racism and classism and how they affect society and the power dynamics of a classroom (Brown-Jeffy & Cooper, 2011; St. Denis, 2009; Schmeichel, 2012).

Schmeichel (2012) has argued that seeing children of colour as having knowledge and cultural skills that require a difference in response is similar to discourses of deficiency, as both rely on “difference as a system of reason” (p. 222). Cultural difference, even when viewed as a resource for pedagogical practice, can perpetuate the divisive concept of the cultural Other (St. Denis, 2009). To address this, CRT must include a critical examination of racism and classism to understand how they affect the structure, policies, and practices of current formal education (Brown-Jeffy & Cooper, 2011; Schmeichel, 2012; St. Denis, 2009). A pairing of CRT with critical race theory is thought to bring attention to the effects of racism, while challenging “the hegemonic practices of White supremacy as masked by a carefully (re)produced system of meritocracy” (Brown-Jeffy & Cooper, 2011, p. 70). In reference to Indigenous Education, St. Denis (2009) explained that cross-cultural training that is void of anti-racism education “often has the effect of encouraging the belief that the cultural difference of the Aboriginal ‘Other’ is the problem” (p. 178), an outcome that ultimately goes against the central purpose of CRT.

Even with these concerns about its shortcomings, a CRT approach to schooling continues to gain popularity amongst scholars and educators. It is one of the most commonly referenced

methods for understanding and reversing the underachievement and failure of students of colour and low-income (Hammond, 2015). In a literature search on September 20, 2015 on Google Scholar, the phrase culturally responsive education displayed 186,000 results with Ladson-Billings' (1995b) *Toward a theory of culturally relevant pedagogy* cited 2427 times and Gay's (2010) *Culturally responsive teaching: theory, research, and practice* cited 4208 times. CRT is seen as a promising approach for increasing the achievement rates of Indigenous students across North America (Agbo, 2001; Alaska Native Knowledge Network [ANKN], 1998; Castagno & Brayboy, 2008; Demmert & Towner, 2003; Kahontawkas, 2012; Lewthwaite et al., 2013; McMillian, 2013). The following is an overview of literature on CRT specifically related to Indigenous students.

Culturally Responsive Teaching for Indigenous Students

One of the fundamental positions of CRT for Indigenous students is the integration of Indigenous cultures, languages, practices, and worldviews into a school's policies, programming, and pedagogy (Castagno & Brayboy, 2008; Lopez, Heilig, & Schram, 2013; Maguire & McAlpine, 1996; McMillian, 2013; Villegas & Lucas, 2002). Researchers who focus on the academic attainment of Indigenous students often highlight the importance of culture-based education practices in the improvement of student motivation, engagement, and academic achievement (Demmert & Towner, 2003; Faircloth & Tippeconnic, 2010; Ginsberg & Wlodkowski, 2000).

Employing culture-based education for Indigenous students' rests on the idea that the Westernized operation of schools (i.e., the administrative operation of schools, the curriculum, and how the curriculum is implemented by teachers) conflicts with students' cultural knowledge

and preferred approaches to learning (Anuik & Gillies, 2012; Castagno & Brayboy, 2008; Curwen-Doige, 2003; Goddard, 2002; Kanu, 2011; Moll et al., 1992; Ragoonaden & Mueller, 2017; Watt-Cloutier, 2000). Cultural conflict can also occur between teachers and students.

Milner (2010) explained that:

When teachers operate primarily from their own cultural ways of knowing, the learning milieu can be foreign to students whose cultural experiences are different and inconsistent with teachers' experiences. Such cultural conflicts can have negative consequences because there are few points of reference and convergence between teachers and students. (p. 24)

Consequences of cultural conflicts can include widespread underachievement and eventual drop out for Indigenous students (Castagno & Brayboy, 2008). This is not to say that students cannot learn from teachers who have a different cultural background; rather, it is to assist teachers in identifying cultural conflicts in their own teaching pedagogy and to look for ways of breaking down those conflicts. Research that promotes convergence between non-Indigenous teachers and Indigenous students has provided varying suggestions on how non-Indigenous teachers can learn to develop pedagogical practices with on-going learning about students and their culture and community (Berger, 2008; Higgins, 2011; Lewthwaite & McMillan, 2010; McMillan, 2013) and through relationships with students, parents, and communities (Moll et al., 1992; Moon, 2014; Pashagumskum, 2014; Villegas & Lucas, 2002). Some scholars have advocated that integrating local traditional knowledge and school curricula should not negate the importance of academic rigour; instead, it must strive to strike a balance between upholding local traditional knowledge and skills and promoting academic success (Agbo, 2011; Castagno & Brayboy, 2008). Some Indigenous communities refer to this unique

school approach as one that can provide students the skills and knowledges of ‘two worlds’ (Bartlett, Marshall, & Marshall, 2012; NAN, 2012).

The metaphor of ‘two worlds’ can be used to illustrate the different experiences, knowledges, skills, values, and ways of living that exist between Indigenous communities and non-Indigenous communities (e.g., NAN, 2012), although Henze and Vanett (1993) caution against the overuse of this metaphor, explaining that it can cause an unrealistic assumption that students can walk in two separate and idealized worlds. They wrote that ‘two worlds’ simplifies the complexity of culture and choices facing Native youth and disregards the conflicts that arise when someone tries to merge conflicting education systems which often promote diametrically opposed values. This caution is worth remembering as the metaphor is likely to continue to be used. The First Nations communities within the Nishnawbe Aski Nation in northern Ontario are an example of this. The 2012 NAN education report stated that:

Our traditional knowledge must be incorporated into our education programs; it is what makes us who we are, it is our identity. If we deprive our children of learning about their ancestors, then we are destroying the identity of our children and future generations. ... We, as First Nations people, have an obligation to ensure that our children are equipped with learning that will help them survive in two worlds, that of their own people’s plus that of the outside world. (p. 64)

In their report, the use of the metaphor of ‘two worlds’ is an attempt to describe the different knowledge and skills valued by many First Nations people and Western school systems. What is clear from their report is that First Nations communities in northern Ontario are calling for a school system that values and affirms the cultural knowledge of each community, an approach to

education for Indigenous students that echoes what Mi'kmaw scholar Marie Battiste (1998) advocated for over a decade ago:

The need is great for a transformed education that enriches our character and dignity, that emerges from one's own roots and cultural experience, from which a voice once powerless can be raised, and where diversity is seen as an asset, not a source for prejudice. (p. 22)

CRT supports this call for a transformed education by placing Indigenous cultural knowledges, experiences, and perspectives at the core of its content and pedagogy. CRT seeks to support the building of culturally knowledgeable students whose school experiences affirm cultural identity. In a published series promoting culturally responsive schooling in Alaska Native communities, the Alaska Native Knowledge Network (1998) wrote that culturally-knowledgeable students will be “able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life” (p. 6). Too many Indigenous students continue to attend schools that are lacking their cultural identity, experiences, and perspectives, creating further conflict and harm to students' academic and personal wellbeing (Battiste, 2013; Hookimaw-Witt, 1998, Kanu, 2011).

Teacher education programs can promote CRT approaches to teaching by providing the theoretical framework and addressing CRT practices in their courses. Teacher candidates can begin learning about, or build on their knowledge of, Indigenous cultures and perspectives. Although teacher education programs are limited in terms of preparing teachers to know the specific cultural context of the communities in which they will teach, teacher education programs can provide a foundation for understanding the larger context of FNMI education in Canada, as well as Indigenous and non-Indigenous relations in society.

The foundational knowledge of Indigenous Education. Many teacher candidates who arrive in teacher education programs have minimal knowledge of Indigenous histories, cultures, and perspectives (Blimkie et al., 2014; Dion, 2007; Dion, Johnston, & Rice, 2010; Nardozi, et al., 2014). The knowledge that future teachers may have can be based on stereotypes “as depicted in the media and popular culture” (Vetter & Blimkie, 2011, p. 177). A lack of knowledge and awareness of Indigenous people, or knowledge that is immersed in stereotypes and prejudices, creates further division between non-Indigenous teachers and their Indigenous students. As Dion (2007) and St. Denis (2009) claim, the best of teachers can unintentionally perpetuate further harm and cause conflict if their knowledge and understanding of Indigenous peoples and cultures is based upon homogenous, primitive, or romanticized notions of the Indigenous Other.

Understanding the diversity that exists amongst Indigenous peoples, cultures, and communities can dismantle a homogenized view of Indigenous peoples, cultures, and communities (Chartrand, 2012). Since many teacher candidates arrive in teacher education programs with little knowledge of Indigenous and non-Indigenous relationships, it is essential that they be provided with accurate and informed knowledge of Indigenous histories, cultures, perspectives, and historical and on-going relationships between Indigenous and non-Indigenous Canadians. A foundational knowledge of Indigenous cultures and perspectives can set the groundwork for teachers to develop pedagogical practices that are responsive to Indigenous students’ educational needs (ANKN, 1998; Castagno & Brayboy, 2008; Kahontawkas, 2012; Milner, 2010).

Still, it is important to make clear that the cultural knowledge to which CRT most often refers is specific to the individual student, school, and community. In Villegas and Lucas’s

(2002) description of culturally responsive teachers, teachers are asked to get to know their students and their cultural heritage in order to understand how their students learn and how this knowledge can inform their pedagogical practices. The knowledge and understanding that teachers will need of specific students and communities is nearly impossible to achieve in initial teacher education as it is dependent on relationships with students, their parents, and the community that they are teaching in (Moll et al., 1992; Tompkins, 1998).

The knowledge and understanding that can more easily be brought into initial teacher education are topics that discuss First Nations, Métis, and Inuit traditional knowledges, perspectives, cultures, and the larger issues that exist within Indigenous and non-Indigenous relationships in Canada. Instructors who have taught Indigenous-based courses in education programs have focused their coursework on Treaties and Treaty education (Kovach, 2013; Tupper, 2011), Indigenous place-based and land-based knowledge and experience (Scully, 2012), decolonization (Iseke-Barnes, 2008; Tompkins, 2002), and Indigenous stories and perspectives through Indigenous art and artists (Dion, 2007). By providing in-depth knowledge of Indigenous and non-Indigenous relationships within these topics, teacher candidates are provided a space and time to work through new and sometimes challenging perspectives that are often contradictory to the dominant narrative that is told and believed in Canadian society (Tupper, 2011).

The stories from Canadian Indian Residential School survivors are an example of contradictory narratives that can be new and unsettling for many people. In fact, the Canadian Indian Residential School system and its deep and lasting impact on Canadian society is one of those critical pieces of knowledge that is often unknown or misunderstood by many Canadians (Reagan, 2010). Some teacher candidates continue to dismiss narratives from survivors of the

Residential Schools, claiming that it is in the past and no longer representative of Canadian society today (Dion, 2007; Reagan, 2010; Schick, 2014). What becomes difficult to convey to those who dismiss the past, is that the ideology of White superiority and the assimilation practices of Residential School policies, curriculum, and discipline continue to be echoed in our current education system (Battiste, 2013; Hookimaw-Witt, 1998) and intergenerational trauma from the Schools continues to impact today's Indigenous learners (TRC, 2012). The following is a brief overview of the Canadian Residential School system and its impact on Indigenous and non-Indigenous people today. Learning about this Canadian history and its rippling effects is part of understanding the academic circumstances of many Indigenous students today.

The Indian Residential School system. On June 11, 2008, the Canadian Prime Minister offered former students of the Indian Residential School system a formal apology. The apology acknowledged that the primary objective of the government-funded and Church-operated schools was to isolate and assimilate First Nation, Métis, and Inuit children. Following numerous lawsuits against Churches and the federal government, the Truth and Reconciliation Commission of Canada [TRC] was established with the dual purpose of educating the Canadian public about the Indian Residential School system and promoting national reconciliation. In 2015, The TRC released its final report calling to action the federal and provincial governments, child welfare agencies, and educational institutions to work towards reconciliation between Indigenous and non-Indigenous people and communities. As some of the listed recommendations concerning the Canadian education system, the TRC (2015) report recommended that future Aboriginal education legislation focus on “improving education attainment levels and success rates” and develop “culturally appropriate curricula” (p. 2). The report also noted that there remains a lack

of knowledge and understanding of Residential Schools within schooling and the public in Canada—a reality that must be reversed.

The Canadian Indian Residential Schools system officially began in 1831 with the opening of the Mohawk Indian Residential School in Brantford, Ontario, and remained in operation until 1996 when the last band-run Residential School closed in Punnichy, Saskatchewan (Miller, 2003; TRC, 2012). Though many attempts at missionary schools existed prior to 1831, with the earliest known missionary school established in 1620, the Residential Schools system did not gain federal funding until 1831 (Miller, 2003).

The primary purpose of the Residential Schools was isolation and assimilation as children were removed from their family homes and communities. Initially, parents were encouraged to send their children to Residential Schools and were often given payments of money or food, though some were bribed or threatened (Miller, 2003; TRC, 2012). In 1920 the Deputy Superintendent of Indian Affairs, Duncan Campbell Scott, made Residential School attendance compulsory for every First Nation child between the ages of 7 and 15 (Frideres & Gadacz, 2008; Friesen & Friesen, 2005; Miller, 2003). Once attendance became the law, the number of Indigenous students steadily rose with its highest number reaching 10,000 in 1953 (TRC, 2012).

Within the schools, students were subjected to school policies, rules, and disciplinary actions that were designed to assimilate students into Christian doctrine and Western society. This was done by eliminating all aspects of Indigenous language, cultural beliefs, and traditions, and teaching only the subjects and skills that would prepare them to live amongst the dominant White society (Thorner & Frohn-Nielsen, 2010; White & Peter, 2009). Many students were subjected to harsh beatings, physical and sexual abuse, malnourishment, and sub-standard health care (Schissel & Wotherspoon, 2003). Some refer to Residential Schools as the *Canadian*

Holocaust since almost half of the children forced to attend the government funded schools died or disappeared (Thorner & Frohn-Nielson, 2010). The exact number may never be known as the TRC found that many of the schools stopped reporting children who died or disappeared from their schools.

The impact of Residential Schools was immediately negative, worsening as “former students-damaged by emotional neglect and often by abuse in the schools-themselves became parents” (TRC, 2012, p. 78). The stories from Residential Schools are not all the same; some former students have shared positive experiences from their time at Residential Schools that are not to be ignored either (Miller, 2003; TRC, 2012). While it is important that all stories and experiences are heard from those who attended Residential Schools, Schissel and Wotherspoon (2003) caution anyone from using the positive experiences of Residential Schools to dismiss the destructive force that the schools had, and continue to have on Indigenous people and communities. The legacy of the Canadian Indian Residential School system is: “joblessness, poverty, family violence, drug and alcohol abuse, family breakdown, sexual abuse, prostitution, homelessness, high rates of imprisonment, and early death” (TRC, 2012, p. 78). Many Indigenous communities, families, and individuals across Canada are working to heal and rebuild what was extinguished by the impact of Residential Schools (Reagan, 2010; TRC, 2012).

Former director of research for the TRC, Paulette Reagan (2010), conducted workshops across Canada on the Residential Schools system. In the workshops, she noted that many non-Indigenous Canadians (who she referred to as settlers) confronted with narratives of the Indian Residential Schools, were resistant to the notion that “violence lies at the core of Indigenous-settler relations” (p. 21). Reagan explained that the resistance, or in some cases, refusal to listen to Residential School survivors, occurs because their stories of neglect, isolation, and physical

and sexual abuse in government-funded institutions is a direct challenge to the dominant narrative of Canada being a peaceful and fair country. This resistance is found in Faculties of Education as well (Aveling, 2006; Cannon, 2012; Dion, 2007; Schick, 2014).

The lack of knowledge of Residential Schools can be addressed, as the stories and accurate historical accounts of Residential Schools are becoming increasingly more available to teacher candidates and the general public. Numerous memoirs (Fontaine, 2010; Sellers, 2013; Sterling, 1992), historical accounts (Haig-Brown, 1991; Miller, 2003), commissions (Royal Commission on Aboriginal Peoples (RCAP), 1996; TRC, 2012), and online resources (e.g., www.legacyofhope.ca; <http://wherearethekids.ca>) are widely available with many educational resources designed for schools and teachers to integrate into their lesson plans. Knowledge about Residential Schools can be difficult to learn about and relate to for both teachers and students, especially when it was not known that schools were used as a tool for assimilation. Teacher candidates may feel overwhelmed by the violence and abuse that occurred within the schools, causing moments of vicarious trauma (Reagan, 2010). Support for those learning about this sad chapter in the Canadian education system is therefore important. This knowledge, though emotionally challenging, is necessary to learn as it significantly impacts many Indigenous students today and is an important part of our history.

Culturally responsive teaching for Indigenous students requires teachers to become knowledgeable about students' cultural background and heritage (Castagno & Brayboy, 2008). For some teachers, this knowledge will primarily come from working in Indigenous schools and communities (Tompkins, 1998), though some of this knowledge, such as Residential School history, can be taught prior to working in a school or community. Teacher education can support the beginning or growth of a foundational knowledge base of Indigenous histories, cultures, and

perspectives. It can also provide an awareness and understanding of how teachers have internalized dominant messages of race and racism, White privilege, colonization, and oppression, especially as they relate to the identity of self and others (McDowall, 2017; Milner, 2003; Solomon & Daniel, 2015). Self-reflection that leads to a deeper self-awareness of personal beliefs and attitudes toward race-relations is a necessary component in preparing teachers to teach in cross-cultural or multicultural classrooms (Cross, 2003). The following section explores self-reflection and self-awareness as a critical component of CRT and teacher development and its role in teacher education programs.

Self-awareness in culturally responsive teaching. Simply stated, self-awareness is an awareness of one's own beliefs and attitudes (Garmon, 2004). To engage in acts of self-awareness is to reflect critically on how one's own beliefs and attitudes have been shaped and informed (Allen, 2011; Keltchermans, 2009). Self-awareness in teacher development has been utilized to deepen teachers' understanding about how those beliefs and attitudes are the foundation of one's own teaching approach (Allen, 2011; Milner, 2003; Sameshima, 2007; Tann, 1993). In CRT, self-awareness is seen as a critical component for developing responsive teaching practices (Gay, 2010; Gay & Kirkland, 2003; Hammond, 2015; Villegas & Lucas, 2002). Gay (2010) explained that self-analyses can be used to determine what teachers believe "about the relationships among culture, ethnicity, and intellectual ability; the expectations they hold for students from different ethnic groups; and how their beliefs and expectations are manifested in instructional behaviours" (p. 70). Hammond (2015) acknowledged that CRT is calling teachers to take an 'emotional risk' when they examine how their beliefs influence their response to students.

Hammond (2015) explained that even though the hardest culture to examine is one's own, it is necessary to CRT, as teachers must come to understand:

How their own cultural values shape their expectations in the classroom – from how they expect children to behave socially, take turns during discussions, or even pass out classroom materials. A student's different way of being or doing can be perceived as a deviation from the norm and therefore problematic if we don't recognize that it is just different. (pp. 55-56)

These differences can cause difficulties for students in schools when teachers penalize students who do not fit into their understanding of acceptable and non-acceptable behaviour, interaction, or learning. It is for this reason that teachers must not only learn about their students' culture, but their own as well.

In the work of developing cultural proficiency, Nuri-Robins, Lindsey, Lindsey, and Terrell (2012) position self-awareness and self-analysis as the bedrock for teaching in a cross-cultural context. In their work on cultural proficiency, they explain that cultivating cultural proficiency is an inside-out process that focuses primarily on oneself and not on the study of others. CRT, similarly, has an inside-out component that asks educators to deepen their self-knowledge by engaging in self-reflective practices to deepen one's own self-awareness. In preparing teacher candidates to develop culturally responsive practices, self-reflection can awaken one's own beliefs and attitudes that could otherwise act as roadblocks and barriers for student learning and achievement (Gay, 2010; Nuri-Robins et al., 2012; Terrell & Lindsey, 2009; Villegas & Lucas, 2002). Greenwood (2014) wrote that to "be responsive to culture in education today, generally means that one understands how the power dynamics of difference in race, class, gender, sexual orientation, ability, and other forms of 'otherness' play out in schools and

classrooms” (p. 279). In CRT, teachers are not only asked to respond to their students, but to respond to their own understanding and awareness of differences. This type of self-awareness can develop during teacher preparation through the use of self-reflection and reflective practices (Gay & Kirkland, 2003).

Self-reflection and reflective practices. The concept of self-awareness in CRT builds upon previous literature on self-reflection and reflective practices in education and teacher development (Dewey, 1933; Schön, 1983; Spindler & Spindler, 2000). In the early 20th century, Dewey (1933) wrote extensively on developing the *habit* of reflection in education. His work on reflection concentrated on intelligence in thought and actions to disrupt routines and thoughtless actions. Dewey (1933) listed open-mindedness, wholeheartedness, and responsibility as the three character traits that he believed necessary to achieving a *habit* of thinking in a reflective way. In reviewing Dewey’s contribution to reflective education, Farrell (2012) wrote that Dewey’s theories on reflection in education continue to be built upon, with scholars such as Boud, Keogh, and Walker (1985) re-working Dewey’s ideas to create three broader categories of experience, reflection, and outcome, which describe the cyclical motion of reflective thought in teacher practice. Farrell (2012) also described Schön’s (1983, 1987) theories of the reflective practitioner and reflection-in-action as influenced by Dewey and influential in the literature on reflection in education. Schön’s (1983) reflection-in-action arose from the notion of professionals’ knowing-in-action, which he described this way: “Our knowing is ordinarily tacit, implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action” (p. 49). A professional’s ability to reflect-in-action requires them to be aware of what they know to connect their knowledge and actions to their desired outcomes. Farrell (2012) provided another explanation, as he used the compass as a metaphor to describe

reflective practices in teacher development. He explained that reflection assists teachers and teacher candidates “to stop, look, and discover where they are at that moment and then decide where they want to go (professionally) in the future” (p. 7). In the context of culturally responsive teaching, a teacher’s ability to stop and reflect on the effectiveness of their teaching approach and lesson content will assist educators to respond to their students’ capabilities and needs (Hammond, 2015; Nuri-Robins et al., 2012).

One of the challenges of implementing self-reflection and reflective practices is a lack of clarity surrounding their purpose and use in teacher preparation and development (Ottesen, 2007; Russell, 2013; Valli, 1993). In a comprehensive overview of reflective practices, Rodgers (2002) found four areas in which a lack of clarity can arise in reflective practices in education. These include: a lack of clarity in how reflection differs from other types of thought; unclear criteria to assess the evidence of reflection; an uncommon language in the meaning of terms; and, as a result of a lack of clarity, difficulties researching the effects of reflective teacher education on student learning. The lack of clarity surrounding the use and purpose of self-reflection and reflective practices has also been observed by Russell (2013), who wrote:

Teacher educators rarely *explain* what they mean by reflection; Teacher educators rarely *model* reflective practice; Teacher educators have separated reflection from the world of action and experience; Teacher educators generally *fail* to link reflection clearly and directly to professional learning; 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, emphasis in original)

The confusion surrounding the nature and purpose of reflection may also stem from its multiple uses across various disciplines. A quick search on the terms *self-reflection* and *reflective*

practice on February 12, 2016, on Google Scholar resulted in 972,000 suggested links, referencing reflection and reflective practices in health services, nursing, law, management, leadership, professional development, and teacher preparation. A similar search in Google Scholar using the key words *self-reflection and reflective practices in teacher preparation* produced a smaller, but still significant result of 172,000. Due to its extensive use across disciplines it is understandable that reflection and reflective practices require clarification on their use and purpose in teacher preparation (Rodgers, 2002; Russell, 2013).

In an attempt to bring clarity on the role and use of reflection in education, Rodgers (2002) drew upon the early work of Dewey to define reflection as “the bridge of meaning that connects one experience to the next . . . [giving] direction and impetus to growth” (p. 850). In Ottesen’s (2007) attempt to find a consensus amongst scholars in the field of reflection in education, he found that: “reflection is generally assumed to promote understanding and insight and to have transformation or empowerment as its purpose or effect” (p. 32). Another defining point in the literature on reflective education is the cyclical interconnection between experience, reflection, and growth (Calderhead & Gates, 1993; Dewey, 1933; Korthagen & Vasalos, 2005; Loughran, 2002; Rodgers, 2002; Valli, 1993; Zeichner & Liston, 1987). The life-experiences of teachers have a direct impact on their ability to connect with new information in teacher education courses (Tann, 1993). Rodgers (2002) elaborated on this connection, explaining that: “we make sense of each new experience based on the meaning gleaned from our past experiences, as well as other prior knowledge we have about the world—what we have heard and read of others’ experiences and ideas” (p. 846). She added that the role of reflection is to examine experiences and prior knowledge to connect with other ways of thinking about the teaching profession.

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.

Self-reflection and reflective practices have remained a significant element of teacher preparation, with many scholars continuing to build upon the ideas of Dewey and Schön's work on reflection and reflective practices in education (Boud, Keogh, & Walker, 1985; Loughran, 2002; Rodgers, 2002; Russell, 2013), while many others are re-working these concepts to include a critical examination of cultural diversity (Brown, 2004; Cross, 2003; Tann, 1993), responsive teaching practices (Allen & Hermann-Wilmarth, 2004; Fairbanks et al., 2011), and race consciousness (Garmon, 2004; Gay & Kirkland, 2003).

One of the clear distinctions between reflection in early literature and reflection in cross-cultural relations is made by Milner (2003), who pointed out that early literature on reflection in teacher development is often based on the notion of problem solving or attending to a problem. Milner and scholars within the field of CRT are clear in their message that the problem that needs addressing is not the students, but rather, the lack of race-consciousness, and understanding of privilege and oppression in the operation of schools and the practices of teachers (Gay, 2010; Gay & Kirkland, 2003; Milner, 2003; Schick, 2000). Milner wrote that

White teachers need to continuously engage in learning about how they are implicated in race and racism, because the “very ideas of how we think about knowledge, how it is acquired, where it is validated, and how it is assessed are filled with racial implications” (p. 176). Self-reflection and self-awareness in teacher education is seen by some as a viable skill for teacher candidates to use to untangle these racial implications (Allen, 2011; Grossman, Hammerness, & McDonald, 2009).

Garmon (2004) found that students who displayed open-mindedness and a self-awareness or self-reflection, responded far more favourably to coursework on cultural and racial discourses than students who did not display these characteristics. He noted that open-mindedness and a willingness to listen and learn from others’ perspectives stemmed from prior experiences and values prior to entering the teacher education program. In a similar fashion, Grant and Sleeter (2007) described the ability of a teacher candidate to engage in critical self-analysis as the first building block to becoming an effective teacher. They wrote that what teacher candidates already possess inside themselves, including their knowledge, skills, and attitudes, are most influential on the type of teacher they will become. Fairbanks et al. (2011) wrote of the impact that personal beliefs can have on teacher candidates’ resistance or acceptance in teacher preparation, explaining that beliefs are what causes some teachers to be more thoughtful towards cultural diversity than others.

Teacher candidates whose personal experiences and knowledge of education do not include fluidity, flexibility, or multiplicity may find the concepts within culturally responsive teaching can conflict with their own beliefs of what education and teachers are capable of doing. Fairbanks et al. (2011) provided the example that if teacher candidates believe that curriculum is “fixed, rigid, or not negotiable” (p. 163), they are more likely not going to believe that

curriculum can be responsive to students. Solomon, Portelli, Daniel, and Campbell (2005) found that many White teacher candidates indicated that their lack of awareness of issues around race and racism had stemmed from prior experiences and places in which they were raised, a finding that echoes Sleeter's (2008) work on preparing White teachers for teaching diverse students.

Sleeter (2008) argued that the attitudes and experiences of many White teacher candidates created a high number of teachers who were "ill-equipped to teach students of color" (p. 559). She found that White teacher candidates had little awareness of discrimination; no conceptual framework for understanding inequalities; were ignorant of communities of colour; and lacked awareness of themselves as beings of culture. She argued that teacher education programs must prepare teachers to teach a diversity of students through classroom field experiences in a diversity of school settings alongside planned and guided reflection. Her recommendation for teacher preparation mirrors the cyclical pattern of experience, reflection, and growth found in the field of reflective education. Similarly, Gay and Kirkland (2003) directly connected the importance of self-reflection with developing CRT, explaining that: "teachers knowing who they are as people, understanding the contexts in which they teach, and questioning their knowledge and assumptions are as important as the mastery of techniques for instructional effectiveness" (p. 181). This process, they argue, can begin in teacher education programs.

Preparing teacher candidates to teach Indigenous students requires helping them gain critical self-awareness of how their own knowledge has been shaped and informed by their social, cultural, and political positions. This provides teacher candidates the opportunity to uncover how their beliefs and experiences have shaped their ideas of teaching and learning, and most importantly, to recognize that their way of knowing and learning—their epistemology—is

one way, but not the only way (Delpit, 2006; Hammond, 2015). It helps them to accept and internalize the validity of multiple ways of knowing and learning in schools. According to Griffin, change is a reciprocal process: “To change how one sees the world is to change the self. And to change the self is to change how one sees the world” (cited in Leggo, 2004, p. 33). Preparing teacher candidates to be self-aware, especially in preparation for teaching Indigenous students, requires time and space for teacher candidates to understand their own beliefs, assumptions, and reactions to self-identity and Indigenous people (Aveling, 2006). The study of self in teacher education programs can encourage teacher candidates to become aware of their impact on student learning as they create caring and respectful relationships in the classroom and in some cases in the community.

There is no doubt that most teachers and teacher candidates want to learn to be effective teachers who promote success for all of their students; what can be challenging, and yet the crucial step in doing this, is turning inward to determine in what ways one’s own personally held beliefs, attitudes, and practices promote or hinder success and well-being for all students (Hammond, 2015; Nuri-Robins et al., 2012). A central component of teacher development needs to include critical reflection on self that leads to self-awareness. Teacher education programs have the opportunity to develop responsive and reflective teaching by including the study of ‘self’ alongside the traditional foundations and methods courses (Grossman et al., 2009). Through a growing self-awareness, teachers can begin to understand their impact on the classroom environment, and the relationships they build with students, both of which affect student learning. Self-awareness can lead to more positive interactions and relationships with students. Relationships between teachers and students, which include parents and communities,

is the third component of developing a CRT approach and is discussed further in the following section.

Reciprocal relationships in culturally responsive teaching. The third component in developing CRT for Indigenous students is through cultivating relationships with students, families, and community. Every Indigenous community, family, and student has their own specific values, beliefs, and ways of living that are unique to their own ideologies and lived experiences (Battiste, 2005; Chartrand, 2012). If teachers are to implement curriculum and instructional strategies that are reflective of their students, they must get to know the students they are teaching, and in some cases the community in which they are teaching in. Working in relationship with Indigenous community members, colleagues, and families can help non-Indigenous teachers to connect their lessons and pedagogical practices to the specific ways of the students and their community context (Burleigh 2016; Villegas & Lucas, 2002). Creating relationships between schools and community, and teachers and community members, is recommended in culturally reflective practices for both Indigenous communities (ANKN, 1999; Berger, 2009; Lewthaithe et al, 2013; Pashagumskum, 2014) and urban diverse communities (Dei, James, Karumanchery, James-Wilson & Zine, 2000; Desmoulins, 2009; Gay, 2010; Moon, 2014; Sleeter, 2008; Solomon et al., 2011; Villegas & Lucas, 2002). In a study that explored ways that non-Indigenous teachers can promote Indigenous student success, Moon (2014) found that a teacher's relationship with their students to be critical in fostering a sense of belonging and personal excitement towards school and learning—aspects that are critical to academic success. The culture-based learning that is promoted in CRT for Indigenous students also comes through the relationships built by teachers.

Relationships with people can help non-Indigenous teachers immerse themselves in learning about people and culture without further developing stereotypes of Indigenous people and culture. Curwen-Doige (2003) explained:

Traditions are only one aspect of the ever-changing dynamic within a culture. So to focus on traditional dress, food, music, ceremonies, and artifacts freezes a culture in time and perpetuates stereotypes. Artifacts are static. People and their values, beliefs, feelings, and thoughts are dynamic, and these define the culture. (p. 150)

Indigenous cultures are not static or homogenous; they are dynamic and continually changing. The knowledges, cultures, and way of living of many Indigenous communities' stem from a specific ecological context and are best taught and learned from within the place and relationship in which they are rooted (Battiste, 2005). Although relationships occur primarily within the classroom and community, teacher education programs can foster the importance of relationships when developing cultural competency. Teacher education programs can also prepare teacher candidates to begin their career with a willingness to learn about culture from their students throughout their teaching career (Noordhoff & Kleinfeld, 1991). CRT suggests that teachers who get to know their students can develop an Indigenous informed epistemology and adjust their instructional strategies and lesson plans to work with the specific needs and capabilities of the students (ANKN, 1998; Castagno & Brayboy, 2008; Gay, 2010; Villegas & Lucas, 2002).

The impact of teacher and student relationships. Teachers are central to student learning. Education policy and curriculum content are important to student engagement and learning (Kanu, 2011; Stonechild, 2006), but they are also heavily dependent upon a teacher's willingness and ability to implement them in the classroom (Tupper, 2011). Scholars and practitioners have connected a teacher's influence on student learning to their pedagogical

practices, willingness to learn about, and connect with, students, and their ability to create a caring and respectful environment (Cohen & Bai, 2012; Delpit, 2006; Dobson, 2012; Palmer, 2007).

Outlining the influence of a teacher in student learning does not dismiss the impact that education policy, curriculum content, or socio-economic conditions have on students and teachers; rather, it is an acknowledgement of the positive impact that a teacher can have on student learning. It also sheds light on the negative impact that a teacher's prejudices, low expectations, and generalizations can have on students. Nieto (1999) wrote:

Children come to school as thinkers and learners, aptitudes that usually are acknowledged as important building blocks for further learning. Yet, there seems to be a curious refusal on the part of many educators to accept as valid the *kinds* of knowledge and experiences with which some students come to school, and this is particularly the case with students from low-income and bicultural backgrounds. (p. 8, emphasis in original)

This "refusal" to validate differing kinds of knowledge comes largely from deeply held beliefs and mind-sets about what is considered valid knowledge that teachers either knowingly or unknowingly carry into their classrooms (Delpit, 2006). The teacher as a person is just as important as the subject they are teaching because they create the learning experience for students (Kelchtermans, 2009; Palmer, 2007). They create the unspoken learning spaces that are known as the "in-between" spaces of teachers and students (Cohen & Bai, 2012; Dobson, 2012). Cohen and Bai (2012) explain: "The most powerful and authentic transformative agent of teaching and leadership is not the individual teachers and leaders, but rather the relationships -- the in-between spaces of meeting- that they create and the relational encounters they both represent and facilitate" (p. 261). The caring relationships and respectful classroom is invariably

dependent upon the teacher, *who* they are and their willingness to connect to the students (Pashagumskum, 2014; Sameshima, 2007). More and more educators are turning to the importance of teacher-student relationships as the basis for good teaching (Delpit, 2006; MacKenzie & Wolf, 2012; Mason, 2007; Palmer, 2007; Tompkins, 2002). Grossman et al. (2009) found that good teaching involves getting to know and understand each student throughout the school year and to use that knowledge in the planning of lessons and instructions; it is also an essential step to culturally responsive teaching (Gay, 2010; Hammond, 2015; Ladson-Billings, 1994; Villegas & Lucas, 2002).

It is essential that teachers get to know Indigenous students and their families, because without these relationships, teachers may struggle to move beyond the broader knowledge learned in teacher education programs. As an example, when teacher candidates learn about the history of the Indian Residential School system, it is important to also learn that not everyone wants to speak about their experiences at Residential School, nor have all Indigenous families and communities had the same experiences or impact (Schissel & Wotherspoon, 2003; TRC, 2012). Similarly, learning about Indigenous perspectives is important, but not all Indigenous people have the same beliefs and worldviews. Non-Indigenous teachers must think critically about their own ideas of Indigenous students and cultures to make sure that they are based on the student in the classroom and not on generalized ideas of what or who they think Indigenous people are (Dion, 2007).

In a study that examined Aboriginal student success, Whitley (2014) found interactions and relationships with school staff to be one of the key influences on student achievement, as students within the study stated their appreciation for teachers who recognized their personal strengths. In Moon's (2014) research on successful teaching practices for Indigenous students in

urban schools, the Indigenous educators she interviewed promoted inclusivity through relationships by inviting non-Indigenous educators to “see Indigenous students as *their* students, instead of as ‘Indigenous’ and somehow separate” (p. 60). And, in Tompkins (2002) work as a principal in an Inuit community, she found that non-Indigenous teachers who arrived in the north with an openness and willingness to learn and engage in community life were able to contribute to the school’s success far more than those who rarely participated with the community in which they were living and teaching in. It was the teacher’s attitude that determined the type of interaction they would have with students and community.

In a CRT approach to education, teachers bridge students’ preexisting knowledge and experiences with new materials (Hammond, 2015; Villegas & Lucas, 2002). This bridge cannot be built strongly when teachers do not know specific practices and the everyday living circumstances of students in the community. In fact, some propose that culturally responsive education within Indigenous communities must be built on engagement with community and community members (ANKN, 1999; Berger, 2009; Kahontawkas, 2012) and that culturally responsive practice will have “many faces and variations that suit local needs, cultural origins, linguistic family and community customs” (Kahontawkas, 2012, p. 74). Teacher education programs can provide non-Indigenous teacher candidates with opportunities to learn broad information about Indigenous cultures and perspectives but this is not enough. What is taught in teacher education programs has its limits; through self-reflection and reflective practices, teacher candidates can develop an open attitude and awareness that recognizes the importance of learning from and with students. To begin a teaching career with a willingness to learn from the specific community in which they are teaching can help non-Indigenous teachers to move from a position of understanding that is a generalization of Indigenous students to a position that

recognizes the variations of beliefs, values, and experiences of each student (Burleigh, 2016; Noordhoff & Kleinfeld, 1991; Taylor, 1995).

Culturally Responsive Teaching for Indigenous students requires multiple paths to learning. Teachers are asked to gain knowledge, self-awareness, and to build relationships as they move toward an approach to teaching and learning that embraces multiplicity and diversity (Castagno & Brayboy, 2008). For too long, Indigenous students, have been taught in schools that are absent of respect and understanding of Indigenous cultural knowledges and perspectives (Battiste, 2013; Hookimaw-Witt, 1998). For many scholars and teacher educators, working to reverse this absence of knowledge and understanding is a priority (Blimkie et al., 2014; Cannon, 2012; Dion, 2007; Dion, Johnston, & Rice, 2010; Nardozi et al., 2014). The following section explores successes and challenges in bringing Indigenous Education into initial teacher education.

Indigenous Education in Initial Teacher Education

There is a growing awareness that Indigenous students need and deserve to be educated by teachers who are responsive and respectful of Indigenous histories, cultures, and perspectives (Moon, 2014; NAN, 2012; Pashagumskum, 2014). Not every instructor explicitly promotes culturally responsive education in their instructional practices in teacher education; however, the goal of improving and transforming educators' knowledge of, awareness of, and relationship with, Indigenous students and communities is present, with many pointing to initial teacher education as the place to foster such transformation (Aveling, 2006; Milne, 2017; Nardozi et al., 2014). Within the past decade, the integration of Indigenous content and perspectives into teacher education programs has been achieved mostly through teacher education courses

focusing specifically on Indigenous Education (Aveling, 2006; Cannon, 2012; Dion, 2007; Iseke-Barnes, 2008; Scully, 2012), or through infusion programs that insert knowledge of Indigenous histories, cultures, and perspectives through workshops, land-based excursions, and guest speakers throughout various times in a teacher education program (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014; Vetter & Blimkie, 2011). The implementation of Indigenous content and perspectives in teacher education has been examined by many researchers in Canada (Blimkie et al., 2014; Cannon, 2012; Dion, 2007; Iseke-Barnes, 2008; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014; Scully, 2012; Tupper, 2011; Vetter & Blimkie, 2011) and internationally (Aveling, 2006; Kaomea, 2005). In this section the strategies, successes, and challenges from instructors in Faculties of Education are reviewed.

The content and strategies utilized in the infusion approach centred on presentations in teacher education courses that provided knowledge of Indigenous histories, cultures, and perspectives (Mashford-Pringle & Nardozi, 2013) and stories from First Nations scholars, Elders, or community members (Blimkie et al., 2014; Nardozi et al., 2014). The content and strategies in the courses focused mostly on concepts of privilege, oppression, and identity (Aveling, 2006; Cannon, 2012) as well as on Indigenous and non-Indigenous relationships (Dion, 2007).

Aveling's (2006) main goal throughout the courses she taught was to encourage non-Indigenous students to deconstruct their invisibility of Whiteness and to recognize how 'White' people will often racialize Indigenous people but not themselves. To tackle this task, she used artifacts such as past and present policies directed at Indigenous people, as well as stories from both her White students and guest speakers. She wrote that giving students time to share their stories "signals a rightful space within which their experiences count as legitimate knowledge" (p. 266). She also asked guest speakers to talk about their experiences. And, though students

largely enjoyed telling their stories or listening and inquiring into the guest speakers' stories, they displayed resistance to critically examining their own position. Aveling's (2006) writing was based on her observation of teacher candidates' questions during visits from guest speakers and responses in required coursework.

Similarly, Dion (2007) encouraged students to examine their own understanding of Indigenous and non-Indigenous relations throughout her graduate courses by creating a course-long task which she called the 'file of (uncertainties)'. Students collected and wrote about various artifacts and readings from Indigenous scholars and artists that reflected their own relationship with Indigenous peoples. The project provided a place in which students could see their progress in learning as they worked through the course. Dion's (2007) goal in her course was to use the relationship between "personal and public memory" (p. 332). She asked students to connect the experiences, stories, and images from their past with "contemporary work by Aboriginal artists and through juxtaposition speak to their understanding of themselves in relationship with Aboriginal people" (p. 332). She created the opportunity for students to explicitly connect learning about Indigenous cultures, histories, and perspectives, as also learning about themselves.

In Scully's (2012) retrospective account of her experience teaching over 400 teacher candidates in the mandatory *Aboriginal Education* course at Lakehead University, she found experiential learning to be the most effective for teacher candidates to connect their prior understanding with the coursework. Scully (2012) used local and place-based education to promote the understanding that Aboriginal and non-Aboriginal people share an interconnected relationship. She explained that:

By using familiar places, names, plants, stories, and accessible resources such as people, centres, and areas, a sense of competency is already in place - this makes the new perspective or knowledges more accessible and gives more sense of agency to the learner. (pp. 154-155)

All of the instructors reviewed in this section emphasized connecting their instruction and learning materials with teacher candidates' personal knowledge and experiences, making note that this can mean that transformation can be challenging and slow as instructors must begin where teacher candidates are in their initial understanding of Indigenous content and relationships, and not necessarily where they wish they were (Aveling, 2006). Though none of these instructors (i.e., Aveling, 2006; Dion, 2007; Scully, 2012) referred specifically to CRT, the advice of connecting new learning materials with knowledge and experience that teacher candidates (the students) already know is one of the core principles of CRT (Gay, 2010; Hammond, 2015). Instructors in initial teacher education can model teaching practices that build on the cultural knowledge and experience of their students (Allen & Hermann-Wilmarth, 2004).

In the literature, the instructors of courses and workshops sought to gain feedback from teacher candidates on the content and impact of the courses and workshops. While instructors sometimes received feedback on the positive impact on their understanding of Indigenous people and culture, they also identified numerous cases of resistance and struggle. In workshops where Indigenous content were infused in initial teacher preparation, the positive responses included a large number of teacher candidates who reported feeling inspired to learn more than what was presented (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013), with some even asking why they had not been given more knowledge beginning at the start of the academic year. Nardozi et al. (2014) wrote that teacher candidates appreciated the inclusion of First Voice perspectives, in-

depth instruction on current and historical events, as well as an examination of privilege that was brought in through the workshops. All of the studies that looked at the benefits of an infusion approach reported a strong interest from teacher candidates to continue learning about Indigenous Education (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014).

The positive feedback for instructors teaching education courses focused specifically on Indigenous content and perspectives reported appreciation from some of the teacher candidates, as well as acknowledgement of a new and deeper understanding of Indigenous Education and culture (Aveling, 2006; Dion, 2007; Scully, 2012; Tupper, 2011). Similar to the infusion programs, teacher candidates reported feeling inspired by their new knowledge (Aveling, 2006; Tupper, 2011), and were grateful to have had their initial reactions and ideas challenged and transformed through their coursework (Aveling, 2006, Dion, 2007).

In both approaches to bringing Indigenous content to teacher candidates, instructors found two significant challenges that hindered further engagement in the courses and the infusion initiatives. The first was a significant lack of knowledge of Indigenous histories, cultures, and perspectives when students entered education programs, and the second was insecurity towards integrating Indigenous content into their teaching practices (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013).

With the first challenge, instructors commented on the large number of students who indicated little to no knowledge of Indigenous culture (Dion 2007; Mashford-Pringle & Nardozi, 2013; Tupper, 2011). In coursework on Treaty education, Tupper (2011) found that the majority of students surveyed (64%) indicated minimal to no experience learning about Treaties throughout their schooling. Similarly, Mashford-Pringle and Nardozi (2013) predicted that for

some of the teacher candidates, the workshops that were provided during the teacher education program would be the only professional instruction given about Indigenous people and culture. A few instructors challenged their students' claims to having no knowledge of Indigenous people, stating that non-Indigenous people are quite knowledgeable of dominant stories "that position Aboriginal people as, for example, romanticised, mythical, victimised, or militant Other, [that] enable non-Aboriginal people to position themselves as respectful admirer, moral helper, protector of law and order" (Dion, 2007, p. 331; see also Cannon, 2012). The dominant stories of White superiority and Indigenous inferiority are ingrained in our society, adding to the case for the need to look specifically at self-awareness in studies within Indigenous Education.

The second challenge comes from a continued lack of understanding of the importance of knowing and teaching Indigenous content in teacher candidates' own teaching practice. In an Indigenous Education course, Tupper (2011) found that a high number of teacher candidates were unable to see the contemporary relevance of Treaties, with most students unable to see themselves as direct beneficiaries of the Treaties in Saskatchewan (p. 46). Without seeing the relevance, it is unlikely that teacher candidates would feel prepared for, or committed to teaching about Treaties. In their infusion program, Mashford-Pringle and Nardozi (2013) had somewhat better results, and found that 15.5% of teacher candidates indicated "very comfortable" and 24% of teacher candidates indicated "somewhat comfortable" about including Indigenous content and perspectives into their own teaching practices by the end of the teacher education program. Only 15.5 % indicated a discomfort in incorporating Indigenous content and perspectives into their own teaching, even though they, had chosen to be in the inclusion program. Though these figures appear positive, they are only what the students indicated, and do not show whether students gained an adequate knowledge and understanding of what was taught, nor whether they intend to

engage in further learning. When teacher candidates do not view Indigenous content as relevant to teacher development, their interest to learn from and connect with Indigenous students will also be significantly affected.

Aveling (2006) was surprised that after almost 10 years of Indigenous Education instruction in the teacher education program at Murdoch University, Australia, there remained a consistent number of students who indicated dissatisfaction with the course or who saw no value in the course content. This consistent finding of a lack of interest, and sometimes even resentment towards Indigenous knowledge and perspectives, can carry forward into a teacher's career (Schick, 2014). In light of these many challenges, recommendations for improved instruction on Indigenous content and perspectives have included in-depth analysis of White privilege and bias (Dion, 2007; Mashford-Pringle & Nardozi, 2013), racism, colonialism, and oppression (Aveling, 2006; Cannon, 2012), and further guidance on how non-Indigenous teachers can infuse Indigenous content and perspectives into their teaching practice (Blimkie et al., 2014; Nardozi et al., 2014). The current study's focus on raising teacher candidates' self-awareness through self-reflective practices in an *Aboriginal Education* course will provide further insight into the topic of how teacher education programs can provide teacher candidates with the knowledge, skill, and interest in incorporating Indigenous content and culturally responsive practices.

The Case for Self-Awareness in Indigenous Education Courses

Instructors of Aboriginal and Indigenous Education courses encourage self-reflection and self-awareness during conversations and course activities on White privilege, colonialism, and oppression (Aveling, 2006; Blimkie et al., 2014; Cannon, 2012; Dion, 2007; Mashford-Pringle &

Nardozi, 2013; Nardozi et al., 2014; Tupper, 2011; Vetter & Blimkie, 2011). Many instructors have found that understanding racism, colonialism, and privilege can be challenging for many White teacher candidates and have observed varying forms of resistance within their classes (Aveling, 2006; Cannon, 2012; Dion, 2007; Schick, 2000). Conversations about racism, privilege, and oppression are difficult because, for many, they confront the very core of their identity (Aveling, 2006; Cannon, 2012; Dion, 2007). A common form of resistance occurs through comparisons of self with others. For example, in response to conversations about oppression, non-Indigenous people often share stories about their own personal or family struggles that they have faced and triumphed over, insinuating that non-Indigenous people can reach the same level of success that they have if they work harder (Nardozi et al., 2014; Nuri-Robins et al., 2012). Though it is important to acknowledge that everyone has in fact had difficulties and many people face oppression in various ways, the comparison, when used to dismiss the power of colonialism and racism, becomes a barrier to hearing and acknowledging the existence of White privilege and oppression.

Racism can be difficult for White people to see and understand. For many White people, racism is described as violent acts of hatred towards people of colour, and because most people do not engage in violent acts towards others, nor would they stand by and allow for such actions, they do not see racism in themselves, their schools, or their communities (Cannon, 2012; Milner, 2003). But racism is alive and well through words, beliefs, institutional structures, and personal opinions and many people struggle to see these as racist actions (Dion, 2009). Milner (2010) observed that while teacher candidates could recall moments of hearing racist comments from their parents, they did not associate those words as racist actions. He hypothesized that this disconnection between mind-sets and actions could be what is making it “difficult for teachers to

understand how their mind-sets, language, and beliefs could shape their practices” (p. 157). It is this form of disassociation of beliefs and mind-sets of racism and White superiority that has many proclaiming the need for self-awareness and critical study of White privilege in teacher education programs (Aveling, 2006; Cannon, 2012; Nardozi et al., 2014; Schick, 2014; Schick & St. Denis, 2005; Solomon et al., 2005).

It is not enough for teacher candidates to learn about Indigenous cultures and perspectives in initial teacher education. Learning about others without dismantling the ideologies that view Indigenous people as inferior to White people perpetuates belief structures that Indigenous people need help, and that success comes from assimilative practices (Cannon, 2012; Nardozi et al., 2014). Schick and St. Denis (2005) explained this further:

The equating of good with white permits education students to think that they are going to learn of the other, to learn how they can be helpers, to discover how to incorporate practices of the dominant society. This is the assumption of superiority that whiteness permits: what we have and who we are is what the world needs, whether it wants it or not. (p. 308)

This situation suggests that the purpose of Indigenous Education in teacher education programs should be to build new beliefs and new mind-sets that recognize colonialism and racism as everyone’s problem, not just an Indigenous struggle (Cannon, 2012), and to eliminate the concept of deficiency when discussing cultural difference (Aveling, 2006). This is done not by learning about others, but by learning about one’s self, one’s own beliefs and attitudes, and how they have been shaped and perpetuated by culture and the colonial narrative dominant in Canada. This can be done through self-reflective practices (Gay & Kirkland, 2003; Tann, 1993).

Situating my study. Drawing from the work of Indigenous Education course instructors discussed in this literature review, there are only a few examples of the use of self-reflective practices (Aveling, 2006; Dion, 2007; Scully, 2012), and none that focused specifically on the use of self-reflection on teacher candidates' shifting understanding of Indigenous content and teaching Indigenous students.

In Aveling's (2006) Indigenous Education courses, she developed a course curriculum that focused on developing teacher candidates' knowledge, attitudes, and skills—components that she stated were based on the components of multicultural education and self-awareness. She also wrote that her instructional strategy was to challenge teacher candidates to “move beyond telling their story and to critically consider their own positionalities” (p. 266), which is a strategy that engages teacher candidates to critically reflect on who they are and who they will be as teachers. She did not explicitly discuss self-awareness or self-reflective practices; her work as an instructor of Indigenous Education in teacher education draws from the principles of self-reflective practices by engaging teacher candidates in explorations of personal life-experiences and reflection with the aim of developing new ways of understanding Indigenous Education and Indigenous students. In Aveling's (2006) work, she has not reported the overall effects of her practices except to share that she had found that many teacher candidates find it more difficult to examine their own positionalities than examining Indigenous guest speakers' stories and perspectives—a finding that resonates with others on the challenge of self-awareness in teacher education and CRT (Gay & Kirkland, 2003; Hammond, 2015).

In Scully's (2012) work on place-based education, she reported using self-reflective practices in her dissertation research which is a self-study on her instructional practices as a teacher educator in *Aboriginal Education*. She has eluded to reflective practices in her

description of course assignments, which encourage teacher candidates to investigate the Indigenous heritage of places that are of personal importance to them. Though self-reflective practices are a component of her own study on improving her practice as an instructor, they were not directly explored with her students in the *Aboriginal Education* course.

A greater focus on self-awareness and reflective practices is found in Dion's (2007) graduate course in education. Dion (2007) explained that she began her course with a reflective exploration that asked her students to "write about and reflect on their relationship with Aboriginal people" (p. 330). She maintained this focus on self-reflection in her 'File of (un)certainities' assignment that asked students to investigate their autobiography of their relationship with Aboriginal peoples throughout the course. In the assignment, students were to identify and collect artifacts that connected their personal experiences with what they were learning throughout the course. Dion (2007) explained that the collection of artifacts "requires students to attend to their own experience and draws attention to the ways through which their participation in particular cultural practices inscribe ways of knowing" (p. 334). Self-reflective practices are a foundational aspect of Dion's teaching, but her writing on the impact of self-reflection in her course is limited to the feedback she received on course evaluations, and from her own personal reflection of teaching the course.

Self-reflection has been identified as a necessary skill for teachers working in Indigenous communities (Burleigh, 2016; Tompkins, 1998, 2002) and has been utilized for personal growth by Indigenous Education instructors in teacher education programs (i.e., Aveling, 2006; Dion, 2007; Scully, 2012). Still, there is very limited research on self-reflection and reflective practices in Indigenous Education in initial teacher education. A search for *self-reflection in Indigenous Education courses in teacher education programs* on March 4, 2016, using the emphasized

keywords and similar variations in the CBCA and ERIC databases and Google Scholar, resulted in very few studies. Many of the suggested works discuss preparing teacher candidates to teach Indigenous students, but do not discuss the role of self-reflection or self-reflective practices (Lees, Heineke, Ryan, & Roy, 2016; Taylor, 2014). This dissertation research is one of the few studies that focus explicitly on self-reflective practices in Indigenous Education in initial teacher education.

Research that has explored teacher candidates' experience learning about Indigenous histories, cultures, and perspectives has been conducted by either the course instructors (e.g., Aveling, 2006; Cannon, 2012; Dion, 2007; Tupper, 2011), or by research teams seeking to determine the effectiveness of Indigenous content infused throughout initial teacher preparation (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014). The method for data collection used by course instructors included student observation, course feedback from students, and personal reflection on student conversations and coursework. In the larger scale research work on infusion initiatives, the methods used were mainly written surveys after following workshops or presentations, and one-on-one interviews and focus groups after students completed their teacher education program. Researchers noted that the students who indicated an interest in Indigenous Education had accepted their invitation to the interviews or focus groups, and that students who indicated no interest in Indigenous Education were also invited but did not take part (Nardozi et al., 2014). The current study built on the findings from course instructors in the literature reviewed and includes working closely with students from a mandatory *Aboriginal Education* course at Lakehead University's Faculty of Education.

Unlike most of the other studies reported in the literature review, I, the researcher, was not the course instructor. From the position of *participant as observer* (DeWalt & DeWalt,

2002), I followed alongside the students as they were asked to learn, uncover, and shift their awareness of their self and of Indigenous culture and students throughout the *Aboriginal Education* course. Instructors oversee student evaluation, marks, and everything else that is connected to conducting a course, which can affect teacher candidates' responses and comfort in sharing their beliefs and thoughts out of concern that it may affect their course marks. My position was separate from the instructor with the intention that teacher candidates would feel more comfortable and willing to participate in the study and in conversations with me as their responses would have no impact on their marks or progress in the course or teacher education program.

The methods that were used included: one-on-one interviews with current and previous *Aboriginal Education* course instructors; a Likert scale survey that was distributed to teacher candidates at the beginning and end of the *Aboriginal Education* course, in order to demonstrate shifts or resistance amongst large numbers of students; open-ended questions given at the end of the course to provide greater insight onto what teacher candidates' perceived was the purpose and impact of self-reflection in the course; informal conversations with students recorded in notes made in a reflective journal as I sat-in and participated as an unregistered student in each session of two sections of an *Aboriginal Education* course; analysis of student assignments; and, one-on-one interviews with teacher candidates after they completed their first teaching placement. The multiple stages and methods of data collection provided rich data from instructors and teacher candidates.

In the past decade, there have been approximately 18 instructors, both Indigenous and non-Indigenous who have developed and implemented course content and instructional strategies teaching *EDUC 4416 Aboriginal Education* at the Thunder Bay and Orillia campuses of

Lakehead University. Instructors who taught the course most recently and instructed the course more than once were invited to participate. These interviews provided knowledge and insight on teaching and engaging teacher candidates about Indigenous Education. The use of multiple methods of data collection throughout the *Aboriginal Education* course provided rich data on teacher candidates' responses to, and willingness to engage in, the various instructional strategies utilized by the instructor that focused on self-reflection, something that is largely absent from the teacher education literature. Interviews with teacher candidates who completed their teaching practicum were used to explore how self-reflection affected the development of teaching practices. These methods provided insight into what content to teach to raise self-awareness, and *how* to teach—from both the teacher candidates' and the instructors' perspectives.

Chapter Three: Methodology

In this chapter I identify the methodology that guided this study and the methods that were used for data collection and analysis. I begin with an overview of mixed methods and describe both the qualitative method and the quantitative inquiry within this study. I provide an overview of this three-part study and outline each method used for data collection, as well as describe the participants. This chapter concludes with a discussion on trustworthiness, limitations, and ethics as they relate to this study.

Mixed Methods

This study utilizes a mixed methods approach (Tashakkori & Teddlie, 2010). It is a qualitative study that integrates tenets of arts-informed inquiry (Knowles & Cole, 2008) that also incorporates a quantitative survey (Creswell, 2014). A mixed methods study is an approach to research that integrates both qualitative and quantitative methods within its overall design. Some refer to this approach as the third research paradigm situated between qualitative and quantitative approaches to research (Bryman, 1984; Creswell, 2014; Tashakkori & Teddlie, 2010). Qualitative and quantitative research paradigms are distinct with diverging methods, procedures, and approaches to knowledge development.

The primary distinction between these two approaches is that in a qualitative study, a researcher will often explore the meaning of a phenomenon, focusing on themes or patterns that emerge from data collection, and in a quantitative study a researcher will often investigate an observable phenomenon, with data collection used to support or refute a stated hypothesis (Creswell, 2014). In other words, qualitative researchers are often those who come up with the ideas and quantitative researchers are those who verify them (Bryman, 1984). A mixed methods approach to research works within and between these approaches as it collects and integrates

data from both qualitative and quantitative methods. Researchers choose a mixed methods approach when a single approach is not enough to understand the research problem.

A mixed methods approach to research has been defined as an “approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints” (Johnson, Onwuegbuzie, & Turner, 2007, p. 113). Although there is not a consensus on the definition of mixed methods, it is generally agreed that the combined use of qualitative and quantitative approaches provides a better understanding of a research problem (Creswell, 2010; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 2010). Johnson and Christensen (2014) advise researchers to “thoughtfully and strategically mix or combine qualitative and quantitative methods, approaches, procedures, concepts, and other paradigm characteristics in a way that produces an overall design with multiple (divergent and convergent) and complementary strengths (broadly viewed)” (p. 490). The advantage of combining methods is that each approach can potentially address the weaknesses that are inherent in the other methodological approach. For example, quantitative studies are often critiqued for their lack of understanding of context and their absence of participants’ voices, and qualitative studies are critiqued for the researchers’ personal bias as well as their lack of generalizability due to their small number of participants (Creswell & Plano Clark, 2007).

Mixed methods research has not emerged without controversy. The legitimacy of mixed methods as a methodological option has been debated by numerous scholars focusing largely on the compatibility or incompatibility of quantitative and qualitative paradigms and philosophical worldviews (Bryman, 1984; Creswell, 2010; Greene, 2008; Johnson & Onwuegbuzie, 2004; Smith, 1983; Tashakkori & Teddlie, 2010). Creswell (2010) provides a synopsis of the four main positions within this debate. They are:

1. An incommensurable stance: that argues that mixed methods is an impossible proposition because the paradigms are different and cannot mixed.
2. An aparadigmatic stance: that claims that the paradigms are independent and can be mixed and matched in various combinations.
3. A complementary stance: that states that even though the paradigms are different and should be kept separate, mixed methods is compatible and can be used in a complementary position.
4. A dialectic stance: that agrees that the paradigms are different but argues that those differences can lead to ‘useful tensions and insights that should be honoured’. (p. 54)

This study builds on the complementary stance, positioning the quantitative and qualitative methods, procedures, and analyses as separate paradigms. The findings from each methodological approach complement each other and help provide a multi-perspective understanding of how self-reflective practices can transform teacher candidates’ awareness of Indigenous perspectives and teaching Indigenous students.

Even though both qualitative and quantitative methods were used, they were not used equally; the quantitative survey is a smaller aspect of the study that provides complimentary findings for the larger qualitative methods of data collection and analysis. This type of mixed methods design is called an embedded mixed design (Creswell & Plano-Clark, 2007; Tashakkori & Teddlie, 2010). Creswell and Plano Clark (2007) explain that when a single data set is not sufficient for a study, researchers can use an embedded mixed design “when they need to include qualitative or quantitative data to answer a research question within a largely quantitative or qualitative study” (p. 67). This study was primarily a qualitative study as the main purpose was to explore self-reflective practices in an *Aboriginal Education* course from both instructors’ and

teacher candidates' points of view. The quantitative surveys added to this study by investigating teacher candidates' knowledge of, interest in, and attitudes towards Indigenous Education at the beginning of the *Aboriginal Education* course and at the end of the course to determine how these variables changed throughout the course and how, in the participants' perceptions, these changes were related to self-reflection. The findings from the quantitative data supported the primary qualitative data that sought to explore how self-reflective practices in a mandatory Indigenous Education course contributed to teacher candidates' shifting understanding of Indigenous histories, cultures, and perspectives, and how this shift may affect their understanding of teaching Indigenous students and integrating Indigenous content.

Arts-Informed Inquiry

The qualitative inquiry in this study integrates tenets of arts-informed inquiry (Ewing, 2010; Knowles & Cole, 2008). The exploration of teacher candidates' personal and professional understanding of Indigenous students required a methodological approach that promoted reflexivity and accessibility, as well as engaged in multiple perspectives and audiences. Arts-informed inquiry "infuses processes and forms of the arts into scholarly work for purposes of advancing knowledge" (Knowles & Cole, 2008, p. 59). Cahnmann-Taylor (2008) wrote that the implementation of arts in research has the potential of encouraging researchers "to explore even more varied and creative ways to engage in empirical processes" and to share "questions and findings in more penetrating and widely accessible ways" (p. 3). The use of arts and artistic expression in research form and representations promotes new understandings of "process, spirit, purpose, subjectivities, emotion, responsiveness, and ethical dimensions of inquiry" (Knowles & Cole, 2008, p. 59). The use of arts-informed inquiry specifically in research on teacher

candidates' identity and self-awareness development has been highly successful (e.g., Stock, Sameshima, & Slingerland, 2016).

Arts-informed inquiry in educational research stems largely from Elliot Eisner (1991) and his student Tom Barone's work in educational criticism and arts-based methodologies in the 1980s and 90s (Barone & Eisner, 1997). Eisner (2008) wrote that his desire to develop an arts-based approach to research arose from a persistent tension that he felt in his work as a scholar and an artist. He explained that he questioned how researchers could apply the arts to form productive ways to understand and think creatively and "imaginatively" and made it his goal to "develop an approach to the conduct of educational research that was rooted in the arts and that used art forms to reveal the features that mattered educationally" (p. 18). He believed that the use of arts in educational research pushes the boundaries of what is acceptable scholarly inquiry as it elicits creativity and new ways of thinking within the research process (Eisner, 1991). Eisner brought his ideas of an arts-based approach to research to the Annual Meeting of the American Educational Research Association (AERA) in 1993, spurring excitement and interest amongst like-minded educational scholars who further developed and incorporated arts in research, reinforcing arts-based approaches as a legitimate mode and form of inquiry (Cahnmann-Taylor, 2008; Knowles & Cole, 2008).

Even though arts-informed research originated from arts-based research, the two approaches are distinct methodological approaches. Ewing (2010) recommends that scholars do not use the two terms interchangeably, adding that it is "more useful to regard arts-informed research as an inclusive term and not to fragment the discussion by using very similar terms with very fine-grained distinctions" (p. 135). One of the distinctions that Ewing is referencing is the use of art, versus the creation of art. In arts-based research, the creation of art is often viewed as

a crucial aspect of the scholarly work, whereas arts-informed research inquiry is often influenced by art though not necessarily based in the arts (Ewing, 2010; Knowles & Cole, 2008). In Savin-Baden and Major's (2013) overview of qualitative research, they identified arts-informed inquiry as one of the three main types of arts-based approaches, alongside arts-based inquiry and arts-informing inquiry. In their description of arts-based approaches to research, they stated that arts-based inquiry is an artistic process that is used by the researcher to "understand the art itself" (p. 293). Arts-informed inquiry is an approach that uses art to represent findings in a study or uses art to represent a response to the findings, and arts-informing inquiry is an approach that uses art to provoke a response from an audience. White, Sameshima, and Sinner (2015) have used the term arts-integrated to include the various purposes of using the arts in research. This study integrates tenets of arts-informed inquiry by using artistic expression as a process of initiating thought or coming to consciousness through multi-literacies other than scholarly texts. The purpose of artistic expression in this study was to enhance my own understanding of the findings, and to make scholarship more accessible to audiences outside academia (Ewing, 2010; Knowles & Cole, 2008; Savin-Baden & Major, 2013).

In arts-informed inquiry, art and artistic expression can come in numerous forms such as journaling (e.g., Buttignol, 1998); poetry (e.g., Guiney Yallop, 2005, 2010), or photography (e.g., Allnut, 2009). In educational research that is specific to teacher development, Ewing and Hughes (2008) list examples of fictional or digital storytelling, drama, and collage work as ways in which previous researchers have used artistic expression to inform their work. In no way is this list exhaustive; the form or products are almost limitless and can fully emerge during the research process (Ewing, 2010; Knowles & Cole, 2008). What is critical is that the artistic expression is connected to the work and promotes new ways of thinking and understanding.

Savin-Baden and Major (2013) explain that arts-informed studies “are not intended as titillations but as opportunities for transformation, revelation, or some other intellectual and moral shift” (p. 66). Many researchers navigate to artistic expressions that are most comfortable to them (Ewing & Hughes, 2008). In the preliminary development of the dissertation research I created various fictional and non-fictional narratives coupled with photography to engage in the different elements of research preparation. In the introduction chapter of the current study, I shared reflections on the different influences that guided the creation of the research, and during analysis of the findings, I continued these methods of artistic expression by integrating photography and personal reflections that responded to, and explored, my thinking through process of the findings (see appendix A and B). My aim throughout each of these steps were to engage in the elements of arts-informed inquiry described by Ewing and Hughes (2008) as listed below.

As a result of the fluidity and shifting uses of arts-informed inquiry, it is important to clarify the precise boundaries of this methodological approach. Having grown from the work on arts-informed inquiry by Cole and Knowles (2004), Ewing and Hughes (2008) provided further clarity on this issue by sifting through the multiple definitions and uses of arts-informed inquiry to create a succinct list of six accepted elements of arts-informed inquiry. They are:

1. The use of expressive and/or contextualized and vernacular language as appropriate,
2. The promotion of empathy or engagement with the audience,
3. The presence of an aesthetic form or forms (literary, visual and/or performing) in data collection and/or analysis and/or representation and dissemination of the research findings,
4. The relationship between the research topic or issue and its form has integrity,

5. The opportunity to explore multiple perspectives around the research question(s) or dilemma(s),
6. Reflexivity and the personal signature or presence of the researcher/writer, even though the researcher may not be the subject of the research. (p. 514)

The emphasis and use of these six elements are also dependent upon the use of the overall methodology since arts-informed inquiry can be used as a methodological approach on its own or be an enhancement to other approaches, such as arts-informed life stories (McIntyre, 2000), or arts-informed narrative inquiry (Gosse, 2005; Kunkel, 2000; Lindsay & Schwind, 2015).

Integrating tenets of arts-informed inquiry was my approach to a mixed methods study that focused on several of the elements listed above, such as exploring multiple perspectives, reflexivity, and the presence of visual forms in the dissemination of the research findings. Though this study was guided by the six elements provided by Ewing and Hughes (2008), it primarily focused on promoting engagement with the audience, reflexivity and the personal presence of the researcher, and reaching and engaging audiences that extend beyond academic circles. I developed this study with the knowledge and guidance of Indigenous and non-Indigenous academics, educators, colleagues, and family; to exclude the majority of those who have shared their knowledge with me would be disingenuous and maintain separation from community and the academy.

Arts-informed inquiry is recommended in research that examines teacher development and teacher education (Cole & Knowles, 2000; Ewing & Hughes, 2008) due to its acknowledgement of multiple and diverse ways of knowing and understanding of teaching, and from its support and encouragement of reflexivity, artistic self-expression, and self-examination (Ewing, 2010; Knowles & Cole, 1994). In this study, course instructors who have taught the

Aboriginal Education course at Lakehead University were asked questions about their own use of reflective practices in their instructional strategies, while teacher candidates were asked to think deeply on how self-reflective practices in the course aided their own developing awareness of Indigenous and non-Indigenous perspectives, its impact on teaching Indigenous students and integrating Indigenous content.

Data Collection

This study was comprised of three parts: Part one focused on two sections of the course *Aboriginal Education* offered in the fall 2016 semester in Lakehead University's teacher education program. One section was part of the undergraduate concurrent education program; it had an enrolment of 22 students and met for one-and-half hours every week for twelve weeks. The other section was in the one-year education program; it had an enrolment of 23 students and met for two-hours every week for nine weeks. Both sections of *Aboriginal Education* were taught by the same instructor and followed the same course syllabus.

Part one. This component of the study commenced at the beginning of September 2016 and utilized a 5-point Likert scale survey that was distributed to forty-five teacher candidates on the first week of the *Aboriginal Education* course, and thirty-nine teacher candidates on the last week of the course; six teacher candidates were absent at the end of the course. The response rate in each case was over 86% as 44/45 teacher candidates completed the pre-course survey and 39/45 completed the post-course survey.

Before I distributed the pre-course Likert scale survey, I shared a brief explanation of the study and an explanation of the purpose of their participation. Each teacher candidate received a written copy of the study's description (see Appendix A). On the post-course Likert scale survey,

there were additional open-ended questions that addressed the purpose and impact of self-reflective practices in the course. The Likert scale surveys were used to determine teacher candidates' knowledge of, interest in, and attitudes toward Indigenous Education and to see if the responses changed by the end of the course. The open-ended questions were used to explore teacher candidates' perception of the purpose and impact of self-reflection in the course.

During the fall of 2016, I also participated in both sections of the *Aboriginal Education* course as a participant as observer to gain first-hand knowledge of what the teacher candidates experienced throughout the course. In my introduction of the study, I explained my role and intentions as a participant as observer in the course and distributed a consent form requesting permission to include teacher candidates' statements, questions, and conversations made in-class in my dissertation research (see Appendix C). Forty-five teacher candidates were provided the consent form, and forty agreed to participate: I had to remain cognizant not to include any comments or in-class discussions from the five teacher candidates who did not give consent. The role of observation was secondary to my role as participant, which allowed me the opportunity to learn alongside teacher candidates and to gain firsthand experience of the nine-week and 12-week *Aboriginal Education* classes. During my position of participant as observer, I kept a journal of my thoughts, perceptions, and reflections as a method of recording anecdotal observations of the course experience. These notes helped me to finalize the open-ended questions for the post-course survey, and to finalize the questions for part-two of this study.

During the course, I invited all teacher candidates to share one of their course assignments with me after it had been assessed by the instructor (see Appendix D). The assignment was a two-page reflection paper that required teacher candidates to write two pages that explored theories in the course while reflecting on their own knowledge and awareness of

Aboriginal peoples. The purpose of collecting student artifacts was to examine how teacher candidates responded to a self-reflective practice, and their use of self-reflection in understanding course theory. Seven teacher candidates provided their assignment, and one teacher candidate provided two assignments for a total of eight reflection papers. At the end of the course, I provided teacher candidates in both sections with pizza and fruit as a thank you lunch for welcoming me into their section and participating in the study. I also provided the instructor a small thank you gift for allowing me access to both sections of *Aboriginal Education*.

Part two. This component of the study was intended to be a focus group interview with teacher candidates after they completed their first teaching placement. Twenty-three teacher candidates were eligible to participate, since the 22 teacher candidates in the concurrent education program did not have a teaching placement. I sent an email invitation that included an explanation of the purpose of the focus group interview (see Appendix E), the guiding questions that would be asked, and their rights as potential participants (see Appendix F). I also let teacher candidates know that lunch would be provided during the focus group interview to thank them for their personal time in participating in the study. Three teacher candidates agreed to participate, although, due to scheduling challenges, none of the teacher candidates could meet at the same time. All three teacher candidates agreed to participating in one-on-one interviews that used the same guiding questions. Interviews took place in person at Lakehead University between January and February 2017. The purpose of this step was to explore the impact of the *Aboriginal Education* course on their teaching placement experience, and their interest and attitudes toward Indigenous Education in teacher education.

Part three. The third component of the study utilized semi-structured interviews with current and previous instructors who taught the *Aboriginal Education* course at Lakehead University at the Thunder Bay and Orillia campuses. In the past decade 18 instructors taught the course—this includes those who only taught the course once. I began emailing invitations to participate in the study with the aim of interviewing instructors who had taught recently and who had taught more than one class (see Appendix G). I excluded instructors who had only taught the course once because I thought it was important that the instructors in this study had the opportunity to change and adapt their instructional strategies and learning activities to be, what they perceived, as the most effective. In the initial email invitation, I included a description of the study and consent form (see Appendix H).

I began by inviting six instructors who met the criteria. Five instructors agreed to participate and one declined. The interviews occurred between February 2017 and March 2017. Three interviews were conducted by telephone and two in person at Lakehead University. Three interviews lasted approximately 40 minutes and two interviews lasted approximately 90 minutes. All interviews were audio recorded and transcribed and were followed with a procedure of member check to ensure accurate representation occurred (Creswell, 2014). Instructors were given or mailed a thank you gift for their time and participation in the study.

The following is a description of each method of data collection used in this three-part study, research site access, and participant profiles.

Five-point Likert scale survey. The purpose of the quantitative method was to determine the average knowledge of, interest in, and attitudes toward FNMI histories, cultures, and/or perspectives of teacher candidates prior to completing the *Aboriginal Education* course and to compare this with the results of the survey at the end of the course. The measurement

instrument that was used was a 5-point Likert scale survey, with 11 closed-ended statements that included response possibilities of strongly-disagree, disagree, neutral, agree, and strongly-agree (Boone Jr. & Boone, 2012). Likert scale surveys are a recommended measurement tool for researchers who are attempting to elicit the attitudes and opinions of large numbers of participants within a short time period (Nardi, 2006). The survey focused on three specific subsections: teacher candidates' knowledge and awareness of FNMI histories, cultures, and perspectives; teacher candidates' interest in integrating FNMI histories, cultures, and perspectives into their teaching; and, the attitudes of teacher candidates towards Indigenous Education in teacher education programs (see Appendix I). The Likert scale survey was informally tested and piloted to ensure that the questions were clear and concise (Nardi, 2006). The number of statements on the Likert scale survey was reduced from 14 to 11, in response to feedback from peers who reviewed the survey and indicated that some of the statements were too repetitive. Several of the questions were asked in various ways to ensure reliability in teacher candidates' responses. Forty-four out of forty-five teacher candidates participated in the pre-course Likert scale survey, and 39/45 participated in the post-course Likert scale survey. As mentioned previously, six were absent for the post-course survey.

Open-ended questions. When teacher candidates were provided the post-course Likert scale survey, an additional three open-ended questions were added to gather teacher candidates' personal opinions and self-perceptions on the purpose and impact of self-reflection in the *Aboriginal Education* course (see Appendix J). The advantage of adding open-ended questions to the Likert scale survey was that it provided further exploration and understanding of the experiences of the teacher candidates in the *Aboriginal Education* course (Creswell, 2014). The questions addressed the purpose and impact of self-reflection and included an opportunity for

teacher candidates to add anything that they felt was important on the topic. These specific questions were finalized near the end of the *Aboriginal Education* course to ensure that questions were specific to teacher candidates' experience in the course. Thirty-nine teacher candidates received the post-course survey with open-ended questions. Thirty-three provided a response to the first two open-ended questions and 25 teacher candidates responded to the third open-ended question.

Student artifact (reflection paper). The first assignment in *Aboriginal Education* was collected from teacher candidate's mid-way through the course after the assignment was assessed by the instructor and returned to them. Artifacts are a common form of data collection utilized by qualitative researchers (Denzin & Lincoln, 2008). Artifact data collection has been described as an unobtrusive method of data collection that is often used with other methods of data collection (Hatch, 2002). The reflection papers provided examples of how teacher candidates used self-reflection in developing their shifting understanding of Indigenous peoples, cultures, or perspectives. The idea of collecting student artifacts emerged during my fieldwork in the class. I initially planned to invite teacher candidates to participate in one-on-one conversations with me outside of class time to further explore self-reflective practices. However, I quickly realized that this would be overwhelming for teacher candidates who often expressed how busy and stressed they felt in the education program. The collection of artifacts was a far less intrusive method of collecting data from teacher candidates. Seven teacher candidates provided a copy of their reflection paper. One teacher candidate provided two reflection papers, one completed mid-way through the course and one completed at the end of the course, for a total of eight reflection papers.

Participant as observer (journaling). A part of the exploration of teacher candidates' experiences of self-reflection in both sections of the *Aboriginal Education* course emerged from my participation in the classes, which built trust, relationships, and understanding between potential participants and myself. In qualitative inquiry, Creswell (2014) describes the various types of observations that a researcher can utilize. These range from complete participation, observation as participant, participant as observer, and complete observer. In this study, I took the position of "participant as observer" (p. 191). This, allowed me to focus on participating in the classes alongside teacher candidates as the observation role is secondary to the role as participant. The term *participant as observer* differs from *participant observer* as the role of participant as observer does more than observe, they participate actively while their position of researcher is known to the group (Aloha & Lucas, 1981; Babchuk, 1962; DeWalt & DeWalt, 2002; Kawulich, 2005). During this role of participant as observer, I recorded anecdotal notes in a journal while I participated in the course activities. This enabled me to gain a personal understanding of what teacher candidates experienced in each session of *Aboriginal Education*. The notes included my personal thoughts and reactions from participating in the course. The purpose of journaling was not to methodically record classroom activities, comments, or events as is typically associated with classroom observation (Savin-Baden & Major, 2013). Instead, it was used to more deeply explore the experience of self-reflection in the *Aboriginal Education* course. Journaling in arts-informed inquiry has been described as a way of "problem solving" and as a "thinking-through process" (Cole & Knowles, 2000, p. 49). Journaling in this study provided me a space to record my insights, thoughts, or a more extensive range of ideas that emerged during the research process (DeWalt & DeWalt, 2002). The reflective notes also assisted me in developing open-ended interview questions that encouraged teacher candidates to

share their opinion and experience of the self-reflective aspects of the course. They also aided in the development of the interview questions that linked course content with teaching experience.

Semi-structured interviews. Semi-structured interviews were used with three teacher candidates after their teaching placement and with five instructors who had taught the *Aboriginal Education* course. Semi-structured interviews follow the same process as formal interviews as the researcher develops questions and protocols that encourage active listening throughout the interview process (Savin-Baden & Major, 2013). Where semi-structured interviews differ from formal interviews is in the flexibility to respond and further explore ideas and themes that emerge from the participants' responses (Kovach, 2009). Semi-structured interviews are engaged conversations between researcher and participant that do not always follow the pre-determined questions. The guiding interview questions were provided to the participants prior to the scheduled interview to allow participants time to think about what they considered important to share on the topic. With the exception of one interview, the one-on-one interviews with teacher candidates and instructors were audio recorded and transcribed. The transcribed interviews from course instructors were far more extensive and followed with member check, which provided the opportunity to approve or make changes to the transcript (Creswell, 2014; Krefting, 1991). Four instructors responded, and two of these four made changes to clarify their responses.

The interview questions were finalized after my participation in the *Aboriginal Education* course to ensure that the questions drew on the experiences of the teacher candidates in the course and connected with their experiences in their teaching placement. The guiding questions for teacher candidates focused on their experiences teaching Indigenous students and/or integrating Indigenous content, and the impact of self-reflection and the *Aboriginal Education* course (see Appendix K). The instructor of the classes where I was a participant as observer, as

well as the four previous instructors, were asked about their experience instructing the course; their perception of teacher candidates' knowledge and awareness of FNMI cultures, histories, and perspectives and the use and impact of self-reflective practices in their course (see Appendix L).

Research site access. The instructor of the *Aboriginal Education* course in this study was Dr. Paul Cormier, who granted permission to be named in this research. I approached Paul the previous school year (i.e., 2016-2017) to discuss my dissertation research question and how I might be able to conduct research with teacher candidates in his upcoming classes. I did not begin this process with a specific plan in place; instead, I asked whether I could attend his current classes to see what methods of data collection would complement his instruction and course design and be the least intrusive. I spoke with Paul several times to discuss data collection ideas until we were both in agreement. During this preliminary stage, I also spoke informally with teacher candidates in Paul's *Aboriginal Education* course about their class experiences in order to help finalize the methods and procedures in this study. Paul's support for this research was invaluable as he allowed me access to his classes and provided time in his class instruction for the distribution of the Likert scale surveys. After Paul read and marked teacher candidates' reflection papers, he suggested that I include their reflection papers as a method of data collection as he believed it would be beneficial to my research. As a result, I requested and received an amendment from the Research Ethics Board to invite teacher candidates to share their reflection papers. Paul shared with me later that he appreciated my approach of learning, listening, and discussing before finalizing my methods. I am thankful for his support and willingness to provide me access to his classes, and for participating in a semi-structured interview in this study.

Student participants. Forty-four teacher candidates from two sections of the *Aboriginal Education* course in the fall 2016 semester participated in this study. Twenty-two teacher candidates were enrolled in the undergraduate concurrent education program, and 23 teacher candidates were enrolled in the one-year education program, for a total of 45 possible participants. In my role of participant as observer in the two sections of the course, and through informal conversations with teacher candidates, it was evident that most teacher candidates in the two sections were non-Indigenous and White. Approximately half in the course had arrived from southern Ontario and rural communities that surround Thunder Bay, Ontario. Teacher candidates who participated in different aspects of this study (e.g., Likert scale survey, informal conversations, reflection paper, or semi-structured interviews) are anonymous with only general information provided. 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.

Three out of a possible 23 teacher candidates in the one-year teacher education program participated in semi-structured interviews after completing the *Aboriginal Education* course and their teaching placement. I interviewed the first teacher candidate on January 27, 2017, in person at Lakehead University. She spoke about her placement experience in Thunder Bay, Ontario, and the connections between her personal experiences as a student prior to teacher education, *Aboriginal Education* course theory, and developing inclusive and supportive teaching pedagogies for all students. The interview lasted approximately 20 minutes. I had an audio recording device at the time and took personal notes of her responses. After the interview, I

realized that the recording device failed to record the interview and relied instead on my personal notes for data analysis.

I interviewed the second teacher candidate on January 30, 2017 in person at Lakehead University. The interview lasted approximately 30 minutes and was successfully audio recorded. The teacher candidate spoke about her teaching placement experience in a high school in Thunder Bay, as well as the connections between teaching and course theory. During her placement, she worked in classes that had many First Nation students and wanted to learn more about developing relevant pedagogies and instructional strategies specific to First Nation students in Thunder Bay.

The interview with the third teacher candidate was in person at Lakehead University on February 1, 2017. The interview was approximately 20 minutes and was audio recorded. His teaching placement took place in a high school in an urban city in southern Ontario. Although he stated that he was unaware of Indigenous students in his teaching placement classes, he was interested to learn more about how to integrate Indigenous histories and perspectives into curriculum as he felt it was an important aspect of Canada and the Canadian curriculum.

Instructor participants. Five *Aboriginal Education* course instructors participated in this study. One instructor was the current instructor at the time of the study, and four had recently taught the course. All course instructors chose to be identified and provided background information. The following is an overview of each instructor in the order of the scheduled interviews.

On February 6, 2017, I interviewed Dr. Paul Cormier in person at Lakehead University for approximately 40 minutes. Paul is a member of the Red Rock Indian Band and was the *Aboriginal Education* course instructor in this study. At the time of the interview Paul had taught

eight *Aboriginal Education* classes. Previous to his role as instructor, he shared that he had extensive experience as a cross-cultural facilitator. Paul continues to teach Indigenous Education courses in Lakehead University's graduate and undergraduate Education departments.

I interviewed Dr. Iolehawk Laura Buker on February 13, 2017. Laura explained that she identifies as Stó:lō, people of the river, and with her grandmother, whose family comes from up in the great salmon corridor of northern British Columbia in the Big River district nation. Laura taught 40 to 50 sections of the *Aboriginal Education* course in a period of nine or ten years. Our interview took place by phone for approximately 50 minutes. Prior to the formal aspect of the interview, we spoke informally for approximately 30 minutes to establish a rapport and comfort in the interviewing process (Kovach, 2009). In the developing stages of this study, Laura was the *Aboriginal Education* course instructor, and I observed two of her classes. She also made herself available for conversations during this early phase of research development. At the time of the interview, Laura had recently retired from her position as an Indigenous instructor.

On February 21, 2017, I interviewed Lex Scully by phone. Lex is a non-Indigenous woman of Celtic heritage. At the time of the interview, Lex was a PhD candidate who had taught 17 sections of *Aboriginal Education* at Lakehead University's Thunder Bay and Orillia campuses. Lex is the only non-Indigenous instructor in this study. Prior to our interview, Scully's (2012) written perspectives on teaching the *Aboriginal Education* course influenced my literature review and the development of this study. The interview lasted approximately 30 minutes, and similar to Laura's interview, Lex and I spent time prior to the formal interview in preliminary conversation, in this case discussing research projects and our experience in the PhD program.

On March 14, 2017, I interviewed Dolores Wawia in person at Lakehead University. Dolores, also known as ‘Frog lady’, is a retired professor from Gull Bay First Nation. Dolores taught the course from its inception until her recent retirement; she taught at Lakehead University for 39 years. In 2004, I took the mandatory *Multicultural and Aboriginal Education* course taught by Dolores at Lakehead University’s teacher education program; this was the precursor to *Aboriginal Education*. The interview lasted approximately 90 minutes. During our interview, Dolores shared many stories about her experience as a student in the education program, her transition as a teacher, and her role as instructor at Lakehead University.

The final interview was with Dr. Sandra Wolf on March 20, 2017, by phone. Sandra is Anishinaabe from Turtle Mountain in North Dakota. She taught 12 sections of the course intermittently between 2007 and 2016, until her recent retirement. The interview lasted approximately 90 minutes. I had only met Sandra a few times at Lakehead University prior to this study. We made time prior to our interview for informal conversations to develop a comfort and familiarity with each other.

Each instructor provided a wealth of knowledge of *Aboriginal Education* instruction, and I am thankful for everyone who participated in this study.

Data Analysis

In this mixed methods study, data analysis from qualitative and quantitative methods provided “elaboration, illustration, enhancement, and clarification of the findings from one analytical strand [i.e., qualitative] with results from the other analytical strand [i.e., quantitative]” (Onwuegbuzie & Combs, 2010, p. 411). The analysis of qualitative and quantitative data was completed separately following the protocols and procedures of each methodological paradigm.

Analysis of the quantitative data occurred after teacher candidates completed the post-course survey and followed three steps. First, the results for each statement on the Likert scale surveys were calculated and compared in a chart that provided descriptive statistics (see Appendix M and N). Second, the results from the charts were entered into the SPSS data analysis software program that calculated the knowledge, interest, and attitude means in the pre-course and post-course survey. In the third step, knowledge, interest, and attitude means in the post-course survey were correlated to determine if there was a significant correlation between any of the three means. The results from the Likert scale surveys provided two findings; first, descriptive statistics that explained data by calculating the mean response for each statement, as well as for each subsection of knowledge, attitude, and interest in each section of *Aboriginal Education*. These results were displayed in percentages and graphs where appropriate. Second, the findings showed whether there was a significant difference between the mean responses at the beginning of the course in comparison to the end of the course.

Analysis of the qualitative data included data from multiple perspectives (*Aboriginal Education* course instructors, teacher candidates, and personal observations), and procedures (open-ended questions, semi-structured interviews, student artifacts, and researcher journaling). Analysis of the open-ended questions on the post-course survey began by separating the responses into two groups, those that indicated self-reflection assisted their learning experience in the course and those that did not. I then read through all the responses line by line several times to identify keywords or phrases that appeared repetitive or stood out as significant to the study, such as “grow as learners”, “influence learning”, or “prejudice”.

The keywords and phrases from the first two open-ended questions helped me to develop three broad themes about the purpose and use of self-reflection, these included: self-evaluation;

connection between experience and theory; and developing a culturally inclusive pedagogy. I colour coded each line to correspond with one of the above themes. Twenty-five teacher candidates provided a response to the third open-ended question that asked if there was anything else that they felt was important on this topic. From their responses, keywords and phrases were identified and coded (Creswell, 2014; Onwuegbuzie & Combs, 2010) into three categories: more opportunities to learn cultural practices; more information on how to integrate Aboriginal content; and, no suggestions/enjoyed the course.

The themes identified in the first two open-ended questions guided the analysis of teacher candidates' reflection papers. While reading the reflection papers I looked for keywords, phrases or themes that resonated with, or contradicted, teacher candidates' open-ended question responses. After reading through each reflection paper and compiling the identified keywords, phrases, and themes, I identified aspects of each paper that corresponded with the three broad themes listed above. I found no notable contradictions between teacher candidates' open-ended question responses and the reflection papers.

Analysis of the notes within my reflective journal included three steps. First, I read through the journal notes from both sections of the course and created a chart that identified reflective practices, self-reflection prompts, and an abbreviated form of my anecdotal comments throughout the course (see Appendix O and P). Second, I identified aspects of my notes that resonated with, or contradicted, teacher candidates' data results. Third, I compared my observations with the broad themes that emerged from teacher candidates and course instructors' findings. The reflective journal also provided inspiration for two personal artistic responses of self-reflection that are included in the findings chapter of this dissertation.

Interviews with teacher candidates and course instructors were transcribed and added to a qualitative coding software program, Atlas. ti, where keywords, phrases, patterns and themes were identified and coded. Coding is a common strategy in qualitative data analysis that involves reading through data to find themes and patterns from the participants “utterances, words, phrases, sentences, lines of text, or paragraphs” (Onwuegbuzie & Combs, 2010, p. 409). I looked for themes that I recognized from the literature, as well as those that appeared to be new and relevant. I developed 34 codes that I compiled to develop broader themes that addressed the research question in this study. These themes were categorized as: Teacher candidates’ knowledge and awareness; teacher candidates’ resistance and disposition; the use of self-reflection; and the impact of self-reflection. I repeated this step to identify codes or themes that I might have overlooked in the first coding procedure. As a result, I added two additional themes: effective strategies and assignments and suggested learning activities.

To synthesize the findings and results from five different data sets, I created a chart that explored the dominant themes from the different sets of data and how they connected and diverged. The analysis of the qualitative data provided knowledge and understanding about teacher candidates’ knowledge of, interest in, and attitudes towards the Indigenous Education course; the purpose, use, and impact of self-reflection in the course; and effective Indigenous Education instructional strategies and assignments. The analysis of the quantitative data addressed claims made in the literature and in this study regarding the lack of knowledge and awareness that teacher candidates have on Indigenous histories, cultures, and perspectives, and the impact of the course. The findings chapter is comprised of three research articles, two photographs with art statements, and data not addressed in the research articles. First, I discuss trustworthiness, limitations, ethics, and how I addressed them.

Trustworthiness

In a mixed methods study, trustworthiness is addressed from two different theoretical underpinnings. In quantitative study researchers must ensure reliability, validity and generalizability (Belli 2009; Creswell, 2014), whereas in a qualitative study, a researcher aims for persuasiveness, authenticity, and plausibility (Bulter-Kisber, 2010). Belli (2009) describes reliability in quantitative research as consistency in the measurement procedure to ensure similar findings if repeated with the same participants, and validity as whether the study is measuring what it is intended to measure and that it “represents the overarching quality of the measure” (p. 62). In this study, the quantitative aspect of this study centered on a Likert scale survey that was a researcher-created measure. Reliability and validity was addressed through an internal consistency that measured how well the items on the survey measured what they were intended to measure (Henson, 2001). The questions on the Likert scale were designed to measure the general themes of knowledge, interest, and attitude, and were repeated in similar constructs to test for consistency in participant responses.

In qualitative research, issues and constructs such as reliability, validity, or generalizability are seen as inappropriate (Ewing & Hughes, 2008), and yet many qualitative researchers implement various strategies to ensure trustworthiness in their work. For example, Lincoln and Guba (1985) have described credibility, transferability, and dependability as possible ways that qualitative researchers can ensure trustworthiness. In their description, credibility is listed twice as it covers both internal validity and bias. The use of credibility to establish a qualitative based internal validity is recommended and can be done by integrating multiple approaches to data collection and analysis, “such as checking the accuracy of the data and interpretation with participants in a project or through developing themes and codes using multiple data sources” (as cited in Creswell, 2014, p. 258). Shenton (2004) wrote that it is

through using the right methods of measurement that researchers are able to claim credibility - that a researcher's study is in fact measuring what it claims to measure. Transferability is an external validity; which researchers can ensure by providing detailed description of the context of the study and its procedures. Through this procedure, researchers can demonstrate how the results may be applied to a wider population.

Dependability refers to reliability and can offer the potential for other researchers to repeat a study by “using overlapping methods and in-depth methodological descriptions of the procedures” (Creswell, 2014, p. 258). Dependability is a contested aim in qualitative research; Butler-Kisber (2010) argues that ensuring researchers can achieve the same findings when repeating a study's procedures is not possible or desirable in qualitative research, “as it undermines the very assumptions on which qualitative inquiry is based” (p. 15). In an arts-informed study, trustworthiness is not determined by its transferability or reliability, but instead by its persuasiveness, authenticity, and plausibility. Bulter-Kisber (2010) wrote:

A rigorous or trustworthy study indicates its persuasiveness by including a coherent and transparent research process and illustrating an adherence to researcher reflexivity and reflection, or a clear statement of how the researcher accounts for assumptions and biases. Also it shows how the researcher is situated in the work and accounts for the social and contextual influences, and how she interrogates all of these on an ongoing basis. (p. 14)

To ensure trustworthiness in the qualitative paradigm of this study, I attempted to maintain a transparent research process as I situated myself throughout the research development, process, and analysis. The self-location section in the introduction, a brief explanation of my relationship

to course instructors in the second research article, and the artistic expressions in the findings section provide transparency throughout the work.

Shenton (2004) also includes confirmability in the list of ways that qualitative researchers can ensure trustworthiness in their study. He explained that:

The concept of confirmability is the qualitative investigator's comparable concern to objectivity. Here steps must be taken to help ensure as far as possible that the work's findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher. The role of triangulation in promoting such confirmability must again be emphasized, in this context to reduce the effect of investigator bias. (p. 72)

Triangulation is a process of verifying findings from multiple data sources. Triangulation in this study included corroborating evidence from different participants (e.g., instructors, teacher candidates), from different types of data (qualitative and quantitative procedures), and from different methods of data collection (Likert scale survey, open-ended questions, semi-structured interviews, student artifacts, participant as observer). This study included ongoing verification of findings through triangulation and when possible, active involvement with participants to check whether responses were accurately represented (Creswell, 2000; Krefting, 1991).

Limitations

In each methodological approach to data collection there are inherent limitations. Limitations are potential weaknesses or problems with the study identified by the researcher (Creswell, 2014; Merriam & Tisdell, 2016). The limitations of my role as participant as observer include information not used due to confidentiality and the possibility of information that was

missed because of my focus on participation rather than observation. Limitations in using qualitative semi-structured interviews include research bias in the development of the interview questions and analysis. My own personal beliefs, opinions, background knowledge, and comfort level may have influenced the questions and the participants' responses during classroom participation or during the interviews. Using methods of data collection can be limited to the sites, situations, and participants where I am able to gain access and trust. In this study, access to the *Aboriginal Education* classes provided me with the opportunity to develop trust amongst teacher candidates that contributed to their willingness to participate in various aspects of the study. After the course concluded, teacher candidates' willingness to participate in further data collection activities declined significantly.

Teacher candidates' response to the study may have been impacted by the course instructors' use of self-reflection and support of this research. It is unknown if the same results would have emerged if the course was taught by a different instructor. Some of the teacher candidates provided their reflection paper for the study; it is unknown how many teacher candidates, if any, had a strong disposition towards self-reflection and reflective practices prior to the course that might have impacted the findings. It is also unknown if teacher candidates who participated in the Likert scale survey, open-ended questionnaire, reflection paper, and one-on-one interviews felt a greater interest in the course or topic than those who did not participate as much. However, there was almost full participation in the Likert scale survey and a high response in the open-ended questionnaire.

There are a few limitations in using a Likert scale survey. The first is that it is impossible to know if the participant's responses were true measurements of their knowledge, interest, and attitudes. The Likert scale has been described as unidimensional with limited choices that

prohibit in-depth understanding of responses (Nardi, 2006). It contains no mechanism to know if the participants were responding truthfully, or if they were choosing responses based on making themselves look better to the researcher (Bertram, 2016). The Likert scale surveys were designed to be handed in anonymously to encourage truthful responses. Some participants may have felt uncomfortable choosing extreme response categories, creating a central tendency bias in the results (LaMarca, 2011). A third limitation arises from the development of the statements in the scale itself. If I were to measure exactly what I set out to measure, I had to ensure that the questions I designed for the survey were clear and concise.

I addressed these limitations by utilizing a mixed method research design, using multiple perspectives and methods of data collection to verify the findings through a process of triangulation. During the development of the Likert scale survey, I consulted with peers and faculty members to determine if any questions needed refinement (Nardi, 2006). Researcher bias was addressed through photography, anecdotal comment, and personal reflections that helped to make my biases, intentions, and purpose transparent throughout the research process and representation (Creswell, 2014).

Ethics

Ethics in this study were addressed in both the qualitative and quantitative procedures, methods, and findings. Though there are a few overlapping issues that arise in qualitative and quantitative studies, such as communicating the purpose of the study, obtaining permissions from participants, and protecting anonymity, there are also unique issues that stem from the two different approaches (Creswell, 2014; Merriam & Tisdell, 2016; Savin-Baden & Major, 2013). In quantitative studies, researchers must consider ethical issues that relate to sample size, disruption of research sites, the use of statistical methods, and accurate representations of statistical results

(Jones, 2000). In qualitative studies the ethical issues that researchers must consider are “avoiding deceptive practices, respecting vulnerable populations, being aware of potential power issues in data collection, respecting Indigenous cultures, [and] not disclosing sensitive information” (Creswell, 2014, p. 555).

The issue of sample size in quantitative research can become an ethical concern when sample sizes are too large or too small. Jones (2000) explains that in overly large samples there is a potential harm to participants through unnecessary testing, and in samples that are too small the research may not detect useful data, wasting participants’ time, and their willingness to participate in future studies. In this study, the participants were teacher candidates enrolled in two sections of the *Aboriginal Education* course in the fall, 2016 semester. In this targeted population, there was a small population size with a potential risk of achieving a low number of completed Likert scale survey. To minimize this risk, I kept the survey brief, and had the permission of the instructor to distribute the surveys during *Aboriginal Education* class time (ie., in the first and last week of the course). By asking teacher candidates to complete the surveys during class time, it promoted a higher response rate as it did not require their time outside of their scheduled class time.

The design of this study used mixed methods to correlate conclusions from both the quantitative statistics and the qualitative findings. The implementation of the methods in this study is supported by a rich body of literature, and the quantitative sampling does not attempt to represent populations beyond teacher candidates in the teacher education program.

In the qualitative aspect of this study the potential risks to participants were addressed by protecting participant anonymity and ensuring participant misrepresentation did not occur through member checking (Larson, 2009; Shenton, 2004). The greatest risk for misrepresentation

was from the one-on-one interviews. Interviews with course instructors were extensive and I provided participants from the interviews with a transcribed copy of the interview to ensure accuracy and make changes or additions. Four instructors responded and two made slight changes to clarify their responses.

It was my intention to conduct research that was: respectful, transparent, collaborative, and beneficial to Indigenous students and communities (Aveling, 2013; Kovach, 2009; Porsanger, 2004; Simonds & Christopher, 2013; Smith, 2012; Steinhauer, 2002; Wilson, 2001). Throughout the research process I consulted with Indigenous educators, family members, instructors of the *Aboriginal Education* course at Lakehead University, and Indigenous and non-Indigenous scholars to reflect and learn how to conduct respectful research that is beneficial to educators and Indigenous students. Research with, for, or among Indigenous peoples must include a process of communication, reflection, and personal critique and questioning (Menzies, 2001). As a White researcher, I began the research process with an open-mind and willingness to adapt and change research procedures based on the guidance of Indigenous scholars and educators who worked closely with the current study. As a result, I received encouragement and support from two Indigenous instructors who had instructed the *Aboriginal Education* course during the design phase of this research. Both instructors allowed me access to their classes and took time to discuss appropriate data collection methods and procedures. One of the instructors retired before data collection commenced but agreed to be a participant in the interviews. Dr. Paul Cormier, the other instructor, allowed me access to his classes for data collection and participated in an interview. The research conducted in this study was not based in an Indigenous community. However, included in the ethics application for this study was a letter of support from Paul who endorsed the project. As part of the process of respectful research, I looked for

opportunities to give back for the support I received. During data collection, I provided a class lecture in a different course that Paul was teaching and have continued to work with him in additional research projects.

Chapter Four: Findings

This chapter includes three research articles that present the results from the collected data. The following chapter concludes the findings section with a discussion of the collected data not addressed in the research articles. The research articles address the purpose and impact of self-reflection and self-reflective practices, effective instructional strategies and assignments, and, teacher candidates' knowledge of, interest in, and attitudes toward a mandatory Indigenous Education course. Taken together, the articles respond to the main and secondary research questions and claims made in the literature.

The research articles were written in preparation for submission to academic journals. The articles follow the author guidelines of their intended journals, and that being the case, parts of the literature review, research methods, procedures, and analysis are similar. Article 1, entitled: *Uncovering implicit biases: The role of self-reflection in an Indigenous Education course*, explores the purpose and impact of self-reflection in a mandatory *Aboriginal Education* course and is written in preparation for the *Journal of Canadian Association for Curriculum Studies*. The article explores teacher candidates' written responses to two open-ended questions on the post-course survey and teacher candidates' reflective assignment, informed by my own reflections as a participant as observer in two *Aboriginal Education* classes. The findings in this article discuss teacher candidates' descriptions of self-reflection and self-reflective practices as a method for self-evaluation, a method for creating a personal connection to course theory, or a method for developing a culturally inclusive pedagogy.

Article 2 is entitled: *Effective instructional strategies in an Indigenous Education course in initial teacher education*. This article focuses on the different theories, instructional strategies, and assignments of five *Aboriginal Education* course instructors. Although each instructor shared her or his own approach to the course, four themes of story, land, art, and reflection

emerged from their collected examples and are discussed. The article is written in preparation for the *Journal of Teacher Education*. Five course instructors described instructional strategies and assignments that they believed were most effective for the course and provided examples of how self-reflection and reflective practices were entwined throughout their course instruction. From course instructors' perspectives, utilizing self-reflective practices encouraged teacher candidates to question and reflect on the roots of their initial beliefs, ideas, and responses in order to be more open to perspectives that differ from their own.

Article 3, *Teacher candidates' knowledge, interest, and attitudes towards a mandatory Aboriginal Education teacher education course*, explores teacher candidates' knowledge of, interest in, and attitudes towards a mandatory *Aboriginal Education* course in teacher education from teacher candidates' and course instructors' perspectives. The article is prepared to be submitted to the *Canadian Journal of Education*, and discusses results from teacher candidates' Likert scale surveys, my reflections as a participant as observer and one-on-one interviews with teacher candidates and course instructors. This article compares teacher candidates' and course instructors' perspectives of teacher candidates' knowledge of, and disposition towards Indigenous Education. The findings in this article suggest that although many teacher candidates indicated that they felt knowledgeable by the end of the course, course instructors cautioned that the knowledge and skills taught in the course are limited with more needed as teachers enter their professional career.

Research Article 1: Uncovering implicit biases: The role of self-reflection in an Indigenous Education course

Abstract

This paper explores the purpose and impact 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, thirty-six teacher candidates shared their perspectives about the purpose and impact of self-reflection in an Indigenous Education course. Findings from the survey were correlated with seven teacher candidates' reflection papers and with the author's personal reflections as a participant as observer in two courses. Three broad themes emerged that defined the purpose and impact of self-reflection as a method of self-evaluation, establishing personal connections with course theory, and developing a culturally inclusive pedagogy. The findings suggest that self-reflection in an Indigenous Education course is an effective method for teacher candidates 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

Introduction

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). Hammond (2015) 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 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). This paper explores the impact of self-reflection in teacher candidates' understanding of Indigenous perspectives in a mandatory *Aboriginal Education* course in Lakehead University's teacher education program. Increasing teacher candidates' self-awareness in relation to Indigenous content and Indigenous learners has the potential benefit of improving non-Indigenous teachers' capacity to value and engage with knowledge and perspectives that are different from their own.

Context

Researchers across Canada have described various ways of providing teacher candidates with knowledge and resources for integrating 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 is teacher candidates' overwhelming lack of knowledge and understanding of Indigenous knowledge and issues in education (Blimkie, Vetter, & Haig-Brown, 2014; Nardozi et al., 2014) and 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, is a persistent resistance by some teacher candidates to learn about, or value the integration of Indigenous histories, cultures, and perspectives, with mandated K-Grade 12 curriculum (Mashford-Pringle & Nardozi, 2013).

Teacher candidates arrive in teacher education programs with theories, ideas, and beliefs about education and schooling that are accumulated 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 method for teacher candidates to uncover internal biases and develop their understanding of teaching Indigenous learners and integrating Indigenous content.

Literature Review

The concept of self-reflection in teacher development has a long history in education with many pointing to John Dewey (1910, 1933) as one of the early proponents of reflective practices (Farrell, 2012; Rodgers 2002). Dewey (1933) wrote that when an individual is faced with a perplexity, they will most often do one of three things: drop it and move away from the challenge; begin occupying their mind in indulgent imaginations; or face the situation. It is in the third choice that Dewey believed reflection begins. To make Dewey's theories on reflection more accessible to teachers and teacher educators, Rodgers (2002) summarized his theories as follows: a meaning-making process; a systematic, rigorous, disciplined way of thinking; a process occurring in interaction with others; and a process requiring attitudes that value growth.

She also described Dewey's theory of reflection in education as a "forward-moving spiral" that progresses from "practice to theory and theory to practice" (p. 863).

The same principle can be found in Schön's (1983) theories of reflection-in-action, in which he called upon practitioners in numerous fields to function as a researcher-in-practice. He suggested that when practitioners engage in reflective practices, it can result in a continual process of self-education. The movement between practice and reflection is on-going, as each practice affects reflection and vice-versa. In teacher preparation, Boud, Keogh, and Walker (1985) described reflection-in-action as a cyclical motion that moves from experience to reflection, and reflection to outcome – a theory that Farrell (2012) found to be reminiscent of Dewey's writings and recommendations of reflection in education.

The characteristics of reflection and reflective practices described by Dewey (1933) and subsequent scholars are also found in the theoretical framework of culturally responsive teaching [CRT] and cultural proficiency (Gay, 2010; Hammond, 2015; Nuri-Robins et al., 2012). CRT is an approach to teaching that validates and affirms the cultural heritages of all students in a classroom (Gay, 2010). CRT for Indigenous students is an approach used by many schools and practitioners whose aim is to improve the academic achievements of Indigenous students by developing school curriculum, policies, and practices that not only include culture, but build upon the cultural heritage and way of life of the students and their community (Amprako, 2017; Castagno & Brayboy, 2008; Villegas, 1988).

To develop a culturally responsive approach to teaching, teachers must learn about their students' cultural knowledges and experiences, as well as their own cultural frame of reference that shapes and influences their pedagogical practices (Gay, 2010; Hammond, 2015; Nuri-Robins et al., 2012). Gay and Kirkland (2003) directly connected the importance of self-reflection to

developing CRT, explaining that: “teachers knowing who they are as people, understanding the contexts in which they teach, and questioning their knowledge and assumptions are as important as the mastery of techniques for instructional effectiveness” (p. 181). This process, they argue, can begin in teacher education programs.

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).

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).

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 (Aveling, 2006; Dion, 2007; Scully, 2012), and none that have focused specifically on the effects of self-reflection on teacher candidate’s developing understanding of teaching Indigenous students. In this study, teacher candidates formulated their own descriptions of the purpose and impact of self-reflection in an

Indigenous Education course. 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 is 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 the author's role as participant as observer).

In this paper, the written responses from two open-ended questions about the purpose and impact of self-reflection are examined with eight reflection papers completed by teacher candidates enrolled in two sections of the *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 and impact 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 Lakehead University's 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 one-year teacher education program, completing the course in 9 weeks. Both courses were taught by Dr. Paul Cormier, an Indigenous instructor who followed a similar course design and instructional strategy in each course.

Paul 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 incorporate 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 (Lavalley, 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.

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 what they believed the

purpose and impact of self-reflection was when learning about Indigenous cultures, histories, and perspectives. 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 reflection papers at various times during the course. One provided two reflective assignments 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 of the open-ended questions and teacher candidates' reflection papers was 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 & Howell, 2013). From these codes, three broad themes emerged and were categorized as *self-evaluation*, *connection between experience and theory*, and *developing a culturally responsive pedagogy*.

Confidence in the findings was increased through a process of triangulation, corroborating evidence from different participants, different types of data, and from different methods of data collection (Krefting, 1991; Shenton, 2004). The findings within the study provide insight into the multiple uses and impact of self-reflection in an Indigenous Education course described by teacher candidates. In this paper, the findings discuss teacher candidates' perspectives of self-reflection in an Indigenous Education course.

Findings

In the survey on the last day of class, teacher candidates were asked if self-reflection activities, such as the assigned reflection papers, supported their learning of course content - and to describe how it did or did not support learning. Twenty-eight of the 36 responding teacher candidates described self-reflection activities as beneficial to their learning experience, and seven disagreed. Teacher candidates were then asked to share what they thought was the purpose of self-reflection was in an *Aboriginal Education* course. The following three distinct themes that described the purpose and impact of self-reflection and reflective practices emerged:

- A method for self-evaluation of knowledge, biases, and assumptions about Indigenous cultures, histories, or perspectives acquired either by prior schooling or personal experiences;
- A method for creating personal connections between personal experiences or beliefs and course theory and reading assignments;
- A method for developing a culturally inclusive pedagogy.

Twelve 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.

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

A Method of Self-Evaluation

Twenty-eight teacher candidates described self-reflection as a method for evaluating their personal knowledge of, perspectives on, or assumptions about Indigenous peoples, cultures, histories, and perspectives. From the 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.

A few teacher candidates wrote that self-reflection helped develop 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 acknowledge the importance of self-awareness, others 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 purpose 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, some 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....We were ignorant to the presence of Indigenous peoples in Canada because we had never come into contact with them ourselves. (RP, 2).

Although she believed that her awareness of Indigenous communities was limited, a position that Dion (2007) has described as the ‘perfect stranger’. It is possible that the teacher candidates 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 an Aboriginal 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 begins to articulate how long it took him to let go of this prejudice. He used self-reflection to acknowledge and evaluate his personal beliefs and general attitude towards First Nation peoples living in Thunder Bay. By engaging in a method 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 is useful: “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, writing:

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 can be useful in determining what are and are not, inclusive teaching practices, and can 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 (Tompkins, 1998). Even so, numerous scholars warn that learning about other cultures is not enough. Teachers must turn inward to examine how their perspectives or biases influence 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 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 description of the purpose and impact of self-reflection was the personal connection between prior experiences and course theory. This connection was largely evident in the two 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 wrote 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 wrote:

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 method 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, explaining that: “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 highlight 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 described the purpose or impact of self-reflection as helping develop 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 was teacher-student interactions. In response to the purpose of 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 impact of 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 impact of reflection was described by teacher candidates’ as a method to examine and uncover false ideas or stereotypes of Indigenous peoples, cultures, or perspectives. The majority of 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 will influence 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 may 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 papers' integration of assigned readings alongside personal discussion. One teacher candidate thought that the marking scheme did not align with the reflection papers' 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 papers' expectations confusing, writing: "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 and impact 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 purpose of self-reflection by teacher candidates was its use as a method 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. The processes of self-evaluation led some teacher candidates to conceptualize a direct connection between inclusive teaching practices and internal beliefs and assumptions. In Tann's (1993) theory on the role of self-reflection in teacher preparation, the practice of self-reflection is described as an effective process that expands and clarifies teacher candidates' personal beliefs, ideas, and assumptions through "the challenge of comparison and contrast" (p. 56). The process 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 the purpose or impact of self-reflection, some teacher candidates stated that it provided them with a method 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).

In the written responses of the role and impact of self-reflection, many teacher candidates provided more than one type of response. As previously mentioned, twenty-two teacher candidates identified more than one use of self-reflection, while two identified all three themes described in this paper, and twelve teacher candidates referenced only one of the themes. In Hammond's (2015) theory of developing a culturally responsive approach to teaching, her advice to teachers echoes the three methods described in this paper. Hammond (2015) explained that teachers must uncover their implicit bias through three internal tasks; the first is to identify one's own cultural frame of reference, the second is to widen one's own interpretation aperture, and the third is to identify one's own triggers to differences. She wrote: "We all operate from a set of cultural frames of reference. The challenge is that if we routinely interpret other people's actions solely through our personal cultural frames, we run the risk of misinterpreting their actions or intentions" (p. 58). 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 will 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, and yet, the fairly large number of teacher candidates who indicated that self-reflection was a beneficial method of 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 the impact of, self-reflection in an Indigenous Education course. Teacher candidates formulated their own descriptions of the purpose and use 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 is important, but as necessary is a technique for teacher candidates to recognize their reactions to Indigenous-based theories and content.

In this study, self-reflection was witnessed being used in multiple ways, with a strong emphasis in the reflection papers. According to teacher candidates' survey responses and reflection papers, self-reflection provided an effective method for multiple purposes. For some teacher candidates, self-reflection provided a method for self-evaluation about their knowledge, beliefs, and assumptions about Indigenous and non-Indigenous people. Other teacher candidates thought self-reflection aided their ability to make personal connections with course theory or assisted in developing a culturally inclusive pedagogy. The self-reflection activities in this study had an overall positive impact on teacher candidates, but more is needed. A clear definition of what the purpose of reflection is and an outline of what is expected in self-reflection assignments may lead 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 focused on Indigenous Education and contributes to research on the education and preparation of non-Indigenous teacher candidates to teach Indigenous students and integrate Indigenous content into the curriculum.

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Research Article 2: Effective instructional strategies in an Indigenous Education course in initial teacher education

Abstract

This paper explores the different approaches, instructional strategies, and assignments of five instructors who have taught a mandatory *Aboriginal Education* course in Lakehead University's teacher education program. The findings are drawn from a broader study that examined the impact of self-reflective practices in Indigenous Education. Through semi-structured interviews, five course instructors shared what they believed to be effective instructional strategies and assignments in the course. Although each instructor shared their personal approach to the course, four broad themes of *story*, *land*, *art*, and *reflection* emerged from their examples described. The use of story, land, art, and reflection are discussed in relation to what is reported in the literature about the instructional strategies and assignments of Indigenous Education course instructors (e.g., Aveling, 2006; Dion, 2007; Iseke-Barnes, 2008; McInnes, 2017); expanding the conversation on effective pedagogies for Indigenous Education courses in initial teacher education.

Keywords: Indigenous Education courses; teacher education

Introduction

The 18-hour *Aboriginal Education* course in Lakehead University's teacher education program was first implemented in 2003 as a mandatory course called *Multicultural and Aboriginal Education*. In 2008, the focus narrowed to *Aboriginal Education*, making the program, for many years, one of the few in Canada that made Indigenous Education mandatory in initial teacher education. Since its inception, the course has been taught by various instructors whose course design, instructional strategies, and required assignments were often dependent upon the instructor's personal experiences and expertise. The course is described as: "Theory and

strategies of appropriate education for Aboriginal students” (Lakehead University, n.d.), and course instructors have incorporated theory on colonialism, privilege, and oppression as well as strategies for integrating Indigenous content that are appropriate for Indigenous and non-Indigenous students. Similar to teacher education programs elsewhere, many teacher candidates in the course are non-Indigenous, requiring course instructors to determine which instructional strategies and assignments are most effective in developing non-Indigenous students’ understanding of the issues and perspectives within Indigenous Education (Aveling, 2006; Cannon, 2012; Dion, 2007; Iseke-Barnes, 2008; McInnes, 2017).

In this paper, the different approaches, instructional strategies, and assignments of five instructors who taught the *Aboriginal Education* course at Lakehead University’s teacher education program are highlighted. Drawn from a broader study of self-reflective practices in the *Aboriginal Education* course, the focus on the approach of each instructor adds to the limited literature on Indigenous Education courses in teacher education, and is the only study known to explore multiple instructors’ perspectives on, and teaching practices in, an Indigenous Education course. Although each instructor shared their unique approach teaching the course, four broad themes emerged from the findings that I have categorized as: *story*, *land*, *art*, and *reflection*. This paper concludes with a discussion situating each theme in the literature. These four themes, and the experiences of the five course instructors provide further possibilities on appropriate and effective ways of providing teacher candidates with issues and perspectives on Indigenous Education in initial teacher education.

Context

I am a White educator whose scholarly work has focused on best practices and methods for non-Indigenous educators to learn to develop culturally appropriate and meaningful teaching practices for Indigenous students in northern Ontario First Nations communities (Oskineegish, 2013, 2015). Building on the findings from previous work, I developed a mixed methods study that investigated the impact of self-reflection on teacher candidates' understanding of teaching Indigenous students and integrating culturally appropriate Indigenous content. Though self-reflection remained central to the findings, it became evident that self-reflection was entwined with a variety of instructional approaches and practices. The responses from course instructors on the instructional strategies and assignments that had the greatest impact on teacher candidates' knowledge and understanding of Indigenous Education was extensive, and it became evident that discussing these results could provide insight into effective instructional practices in Indigenous Education in initial teacher preparation courses.

This study examines pedagogies in the mandatory *Aboriginal Education* course at Lakehead University. In 1982, the Canadian *Constitution Act* defined the term "Aboriginal" as including First Nation, Métis, and Inuit of Canada. In more recent years, the federal government has shifted its terminology from "Aboriginal" to "Indigenous" following the *United Nations Declaration of the Rights of Indigenous Peoples* (n.d.). In this paper, the term Indigenous is used except in reference to the *Aboriginal Education* course title or in participant quotes.

Literature Review

The study was guided by the theoretical framework of Culturally Responsive Teaching (CRT) for Indigenous students (Castagno & Brayboy, 2008; Hammond, 2015; Maguire &

McAlpine, 1996; McMillian, 2013; Villegas & Lucas, 2002). The foci of story, land, art, and reflection in this study are explored as potential approaches for preparing teacher candidates to develop a pedagogy that accurately reflects Indigenous peoples, cultures, histories, and perspectives. They align with the principles of CRT, which is an approach to formal education that seeks to improve the educational experience and outcome of Indigenous students by utilizing teaching methods, curriculum, and school policies that are relevant and responsive to Indigenous students, their families, and communities (Alaska Native Knowledge Network, 1998; Kahontawkas, 2012). CRT originated from multicultural education scholars who argued that schools, which operate primarily from White, middle-class cultural frameworks, fail to provide educational policies, programs, and practices that reflect the cultural background and ways of learning of African American, Latino, and Indigenous students (Gay, 2010; Howard, 2003; Ladson-Billings, 1995; Villegas, 1988), resulting in widespread underachievement that has clear divisions in class and cultural heritage as to who benefits from schools and who does not (Howard, 2003).

Some scholars have critiqued CRT and other culture-based theories associating cultural difference with student failure (Brown-Jeffy & Cooper, 2011; Schmeichel, 2012; St. Denis, 2009). They contend that the focus on cultural differences echoes previous educational anthropologists' work in the 1950s and 60s that viewed cultural difference as a disadvantage. These early research findings on the culture of students of colour were always in comparison to the position of White middle-class culture as the norm (Schmeichel, 2012). A student's heritage, ethnicity, cultural affiliation, and socio-economic status were thought to be the cause of the student's difficulties in schools. This belief not only placed White middle-class culture as the

norm but also relieved educational institutions of any responsibility for the resulting inequalities in schools (St. Denis, 2009).

To address this situation, some have argued that CRT must include a critical examination of racism and classism to understand how they affect the structure, policies, and practices of current schooling (Brown-Jeffy & Cooper, 2011; Schmeichel, 2012; St. Denis, 2009). A pairing of CRT with critical race theory is thought to bring attention to the effects of racism, while challenging “the hegemonic practices of White supremacy as masked by a carefully (re)produced system of meritocracy” (Brown-Jeffy & Cooper, 2011, p. 70). In reference to Indigenous Education, St. Denis (2009) explained that cross-cultural training that is void of anti-racism education “often has the effect of encouraging the belief that the cultural difference of the Aboriginal ‘Other’ is the problem” (p. 178), an outcome that ultimately goes against the central purpose of CRT and Indigenous Education.

There is a growing awareness that Indigenous students need, and deserve, to be educated by teachers who are responsive to and respectful of Indigenous histories, cultures, and perspectives (Goulet, 2001; Labone, Cavanagh, & Long, 2014; Lewthwaite, Owen, Doiron, McMillan, & Renaud, 2013; Moon, 2014; NAN, 2012; Pashagumskum, 2014). Of equal importance is providing non-Indigenous students with an accurate representation of Indigenous peoples, cultures, histories, and perspectives (Dion, 2009; Friesen & Friesen, 2002; Kanu, 2006; Toulouse, 2016). Not every Indigenous Education instructor explicitly promotes culturally responsive education in their instructional practices in teacher education programs. However, the goal of improving and transforming teachers’ knowledge of, and relationship to, Indigenous students and communities is present, with many instructors pointing to initial teacher education

as the place to foster such transformation (Blimkie, Vetter, & Haig-Brown, 2014; Nardozi, Restoule, Broad, Steele, & James, 2014).

Although the literature on the integration of Indigenous content and perspectives in initial teacher education continues to grow (Armstrong, 2013; Blimkie et al., 2014; Cannon, 2012; Kovach, 2013; Labone et al., 2014; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014; Tupper, 2011; Vetter & Blimkie, 2011), there remains very little research on teacher education courses focusing specifically on Indigenous Education (Aveling, 2006; Cannon, 2012; Dion, 2007; Iseke-Barnes, 2008; Scully, 2012; McInnes, 2017). In teacher education programs and graduate education courses, the content and strategies shared by instructors focus on privilege, oppression, and identity (e.g., Cannon, 2012; Iseke-Barnes, 2008), as well as on the relationship between Indigenous and non-Indigenous peoples and communities (Aveling, 2006; Dion, 2007; Scully, 2012; McInnes, 2017). Learning activities described include talking circles, guest speakers, field-trips, and required texts by Indigenous authors. Instructional strategies and assignments are used to connect teacher candidates' personal knowledge and experiences with course content and theory. This means that teacher candidates' growth in knowledge and understanding can be challenging and slow. As Aveling (2006) noted, she had to begin where students were at in their initial understanding of Indigenous content and relationships, and not necessarily where she wishes they were.

While most literature on Indigenous Education courses are authored by the instructors themselves and offers first-person accounts of their approach and course content, this paper provides a view of five instructors' instructional approaches to the same *Aboriginal Education* course, extending the conversation on effective pedagogies for Indigenous Education courses in initial teacher education.

Methodology and Methods

In this study, I utilized a mixed methods approach to explore self-reflection in an Indigenous Education course, integrating both qualitative and quantitative methods within its overall design (Tashakkori & Teddlie, 2010). This paper focuses on the findings from semi-structured interviews with five course instructors (Kovach, 2009; Savin-Baden & Major, 2013). The guiding questions were provided prior to the interviews to allow instructors time to think about their responses. I sought to elicit instructors' use of self-reflection in their course instruction, and also ascertain the instructional strategies or assignments they believed had the greatest impact on teacher candidates learning experiences in the course. The latter is the focus of the paper.

In the past decade, approximately 18 instructors have taught the *Aboriginal Education* course—including those who only taught the course once. The criteria for instructors to participate in the study were course instructors who taught recently and for more than one semester. Although six instructors met the criteria and were invited to participate via email, five instructors agreed to participate. The interviews began in February 2017 and were completed in March 2017. Two interviews were conducted in person and three by telephone, lasting between one and two hours. All of the interviews were audio-recorded and transcribed with a copy of the transcription sent to participants by email for member checking (Creswell, 2014). Four participants responded and two made changes and additions that clarified their interview responses. Transcripts were coded in Atlas. ti, a qualitative software program. The transcripts were coded for key words, themes, or patterns (Savin-Baden & Major, 2013) that emerged from course instructors' responses to effective instructional strategies and assignments. A small thank you gift was provided to all participants for their time in the study.

Limitations in using qualitative semi-structured interviews include researcher bias in the development of the interview questions and in the analysis (Creswell, 2014). My own personal beliefs, opinions, background knowledge, and comfort level may have influenced the questions and the participants' responses during the interviews. To ensure trustworthiness, I attempted to maintain a transparent research process as I situated myself throughout the research development, process, and analysis (Bulter-Kisber, 2010). In the findings section, I include a brief biography and statement of my prior experiences and interactions with each instructor. While each instructor had a wealth of experience and knowledge to share on the topic, the condensed narratives in this paper highlight their work and are intended as a celebration of the diversity of instructional strategies and assignments useful to Indigenous Education instructors in initial teacher education.

Findings

Each instructor had their own unique instructional purpose and approach to course design. The following is a brief description of the instructional strategies and assignments that instructors shared with me. The descriptions are presented in the order of the scheduled interviews. A discussion on the similarities and differences in instructional strategies, and how they compare to what is found in the literature follows the findings section.

Instructor: Dr. Paul Cormier. Dr. Paul Cormier is an instructor from the Red Rock Indian Band who has extensive experience working as a cross-cultural facilitator. He had taught eight sections of the course at the time of the interview. As part of the broader study, I took the position of participant as observer (Babchuk, 1962; DeWalt & DeWalt, 2002) in two sections of *Aboriginal Education* taught by Paul that allowed me to gain first-hand experience of the course

content, Paul's pedagogy, and students' perception of the course. I interviewed Paul in-person at Lakehead University after the end of the course. Paul continues to teach Indigenous Education courses in Lakehead University's graduate and undergraduate Education departments. During our conversation about effective assignments and instructional strategies, he described the importance of cultivating an open and safe learning environment, where everyone is encouraged to share their perspectives. He said:

I try to help frame things in a way so that it's not 'us versus them', or 'White people have done so many bad things to Native people.' I really try to stay away from those kinds of things and present it in a way so that people understand it's all points of view and the truth is somewhere in the middle.

Paul strategically communicates with teacher candidates in ways to that causes them to think about and identify personal perspectives about Indigenous people, and culture or issues in education. He then asks them to think about how their personal experiences have shaped their perspectives:

I really try to make sure students understand that my point of view, like theirs, is based on my experiences. If they don't have experiences with Native people, it's not their fault. I really try to help them understand that it's not about blaming. It's not about trying to say 'you're racist because you don't know anything about Native people.' I try to make sure that they understand that all of this is based on your history and the way that you were brought up, [and] where you lived.

Paul knows that many of the teacher candidates who enter initial teacher education are non-Indigenous with little knowledge of Indigenous Education. He manages to draw out teacher

candidates' knowledge and perspectives by building trust in the classroom. One of the ways he does this is by sharing personal stories about his own learning experiences. He explained:

I really try to choose my words carefully, [and] I really try to make students feel very comfortable. I try to relate to them as a teacher because I was a teacher.... I share a lot of personal stories because I think being personal has a greater impact on people, and I was very ignorant when I grew up because I grew up in a very small town. So I understand that experience is what changes you.

By establishing an open learning environment, he encourages teacher candidates to ask questions, even those they would normally feel uncomfortable asking.

Assignments and class activities varied and included two reflection papers, non-traditional sharing circles, and land-based activities guided by local Indigenous Elders or community members. He explained that he frames his course around using definitions of "perspective and perspectivism". He said:

I want the students to be able to reflect on where their thoughts come from and where their feelings come from about Aboriginal people, and so it's tied into the course. And then the final assignment, I want them to explain how they've grown and learned over the course. So I ask them to reflect again.

Reflection is central to Paul's course design. In his final assignment, he asked teacher candidates to write a letter as they would to apply for a job and explain how their knowledge increased or changed over the course, and how this will help them in their job. Through the various learning activities in the course, he hoped to encourage teacher candidates to be reflective practitioners.

He explained: "When they are a teacher and they are selecting teaching materials, they ask

themselves, ‘what point of view do those materials come from?’ and [they can] reflect on that and reflect on their words.” He further added:

If you are teaching something and the student has a visceral reaction to it, then you notice it; you have to think and reflect on that all of the time. To me, that is pedagogy and making sure that the content that we are delivering is sensitive but also the way we are delivering it is sensitive. So I have them think about that throughout the whole course and I consciously did that at the beginning when I designed it because as a teacher I believe in modeling what I am saying, so I try to demonstrate that in the class.

In response to what instructional strategy or assignment had the greatest impact, Paul noted that most teacher candidates appreciated the activities that took them outside and out onto the land. The land-based learning activities included nature walks guided by an Elder who shared stories and knowledge about traditional uses of the plants that surround Lakehead University. While self-reflection was clearly a prominent aspect of Paul’s instructional strategies, it was coupled with establishing a safe learning environment where all teacher candidates could feel comfortable sharing their perspectives, and an experiential learning environment in which teacher candidates had the opportunity to have first-hand experience participating in Indigenous cultural traditions.

Instructor: Dr. Lolehawk Laura Buker. I interviewed Dr. Lolehawk Laura Buker by phone. Laura is an Indigenous instructor who identifies as Stó:lō, people of the river, and with her grandmother, whose family comes from up in the great salmon corridor of northern British Columbia in the Big River district nation. Laura taught 40 to 50 sections of the *Aboriginal Education* course over a period of nine or ten years. I had the opportunity to sit-in during two of

Laura's classes prior to data collection. Like Paul Cormier, her instructional approach towards the course was deliberate; she said:

I worked toward building relationships, and I used words that were encompassing and inclusive. I use those deliberately, because I'm sure they weren't hearing them too many other places, [and I did] anything that we have to do in terms of building a compassionate heart towards history and also a thoughtful mind.

Laura often used the word "invite" when she spoke about teaching. She would tell teacher candidates that:

You are going to be out in classrooms with Indigenous ... children or youth in them, and the words that you use to invite people into discovery and exploration and understanding has to have the right kind of language that is inclusive, that makes people feel empowered and ... respected.

Laura sought to create the type of teacher-student interaction and classroom learning environment that she asked of teacher candidates. Like Paul Cormier, she invited teacher candidates to feel that the course was a safe space to ask tough or embarrassing questions. She mentioned beginning the course with an exploration of the term *Aboriginal worldview*, explaining that this conversation made Aboriginal worldview visible, showed how diverse it is, and made clear how worldview is the "foundation of anything and everything that is Indigenous Education." After setting the stage for respectful and deep conversations on Aboriginal worldview, Laura moved on to topics such as the Residential School system. Cautioning that these conversations did not happen right away, she said:

It took some time. We would work through what Indigenous worldview and perspectives meant and I made sure it was enriched with curriculum. For instance, they walked in

every week and there would be some sort of cool Métis or Aboriginal music playing as they came in, and I would also put up on the big screen some art from an artist they may not have seen before, for example, a painting, a drawing, or a carving. So, every part of walking into that space was welcoming and enriching. It wasn't just walking in and opening up a book and here we go, I wanted them to really experience how they could create something. But they would have to experience...how welcoming a space can be, and also how to move from that introductory place, to what it looks like to have such a diverse and rich experience with Aboriginal languages, cultures, and worldviews from all different territories.

Laura taught the topic of the Canadian Indian Residential Schools system using multiple learning resources that included Residential School survivors' stories, media and websites such as *where are the children.org*, and later, the Truth and Reconciliation Commission (2012) report. Her approach was to bring in first-hand accounts; As one example, she would read aloud the first ten or twelve pages of Shirley Stirling's (1992) autobiographic book, *My Name is Seepeetza*. By bringing in first-hand accounts of Residential Schools, Laura found that teacher candidates "could really feel the empathy of what is needed." She explained that many teacher candidates were shocked to learn that the Residential School system was driven by government policy. Recognizing the emotional impact of the topic, she would end sessions with time "where we could breathe in and breathe out about the hopefulness of moving forward." Laura noted that teacher candidates needed various supports when engaging in difficult and emotional learning topics.

Laura utilized numerous strategies and assignments throughout her time teaching the course. She would regularly invite local Elders to come and visit with the class, hold roundtable

focus group discussions on how to incorporate Indigenous worldview into various teaching subjects, and read aloud Indigenous stories, such as: *The Animal People Choose A Leader*, written by Ojibwe author Richard Wagamese, in the edited book by Mishene and Toulouse (2011). She also developed an assignment that had teacher candidates create a short two-minute film in small groups on a topic of their choice. Laura felt the strategies and assignments that had the greatest impact on teacher candidates were anything built on stories. She said:

I think two things; one is the power of story and the power of the stories of the land. How the students made the connection that everything in Aboriginal worldview no matter which territory you are on is connected....The other was the digital media, being able to see the film, and be moved by visuals that they created and be empowered by that.

In conversation about self-reflection in the course, Laura explained that self-reflection was embedded through many aspects of her course design:

Every one of those projects always had a reflective component to it. They always had to tie it up. We were going to look at a question or explore something, we're going to think about it deeply, and then once we thought about that, we would dig deeper. That was the actual word, 'dig deeper'. So you know they would go to a surface answer and I would say 'dig deeper', and then we would discuss and reflect. 'What is all of this leading to?' 'How does this have meaning for you?' 'How is this relevant and important?' So the whole strategy of reflection was engrained in everything: we practiced together, explored together, and put together for their evaluation projects.

The concept of self-reflection used in conjunction with other important strategies is repeated in Laura's examples of teaching. Self-reflection is important, but equally important is establishing a learning environment that is conducive to reflection.

Instructor: Lex Scully. I interviewed Lex Scully, a non-Indigenous woman of Celtic heritage, over the phone. At the time of the interview, Lex was a PhD candidate who had taught 17 sections of *Aboriginal Education* at Lakehead University's Thunder Bay and Orillia campuses. Prior to our interview, Lex Scully's (2012) written perspectives on teaching the *Aboriginal Education* course influenced my literature review and the development of this study. During our conversation about self-reflection, Lex explained that one of her first assignments in the course had teacher candidates investigate and identify the treaty and traditional territory of a place that they felt a personal connection with in their life. She found this assignment helped teacher candidates to become "more aware of how they were already in relation with Indigenous people and territory." Place-based education and critical reflection are central to her course design. When asked what strategies or assignments she believed had the greatest impact on teacher candidates, she described an activity that combined place-based learning with critical reflection:

In Orillia we often go to the Fish Fence, and the Fish Fence is underneath a highway bridge that most of the students travel along every day. And most of the students say 'wow I never knew this was here before.'

While at the Fish Fence, she asks teacher candidates to think about the history of the land. She said: "It's also important to ask them to reflect, to be reflective about where they are, whose land it is, how is it related to how they used to move around the place - all that kind of stuff."

Similar to Paul Cormier and Laura Buker, Lex found that teacher candidates often identified learning on the land or with community members as the learning experiences they felt were the most impactful. In a final assignment in the course, she asked teacher candidates to pick two experiences to reflect on and share. She described it as follows:

I wanted them to pick two experiences that they had over the term and tell me how that impacted their self-concept as an educator who had a responsibility to teach with and about FNMI communities. And without fail, I'm going to say its pretty close to 100% of the people identified a time that we were on the land and then a time when a community member came into the class as having significantly affected their ability to see themselves as capable of teaching that material or that concept.

Throughout her course design, she indicated that critical thought and reflection were important. She emphasized the importance of including conversations about White privilege, and said providing teacher candidates with assignments or instructional strategies that are a type of cultural appreciation is not enough. She began these conversations by telling her class about her responsibility to Indigenous Canadians:

I as a Canadian citizen, my house, my education, my well-being, and the choices I am able to make are all a result of natural resource extraction on stolen Indigenous land. I have a responsibility to make sure that there is equity in terms of the way that that wealth is shared out and right now there isn't.

She would also tell teacher candidates that: "I think education has a really important part of creating a critical map of Canada that is big enough so that these systems can change in a way that it can benefit Indigenous peoples' resurgence and sovereignty."

While acknowledging that discussions of White privilege, oppression, and systematic racism in our schools and our everyday life can be difficult for some teacher candidates, she explained that as a White instructor it is imperative that she facilitates these conversations:

As a White instructor of that course I have two jobs. One of my jobs is to model that I am implicated in all these processes and I have a responsibility as a treaty partner, as a

Canadian citizen to fight for equity and fight for justice in terms of how that wealth is shared out. And also, my other job is to show that I am not to be an expert in Indigenous culture and Indigenous people but that I can model having good relationships with communities. That there are people who it is their role to come and be that for the class.

Lex's instructional strategy combines decolonization (Donald, 2009) with experiential place-based teaching (Gruenewald, 2003; Scully 2012). She models discussions of decolonization by sharing her own awareness of the inherent privileges as a White instructor.

Instructor: Dolores Wawia. Dolores Wawia, also known as 'Frog lady', is a retired professor from Gull Bay First Nation. Dolores taught the course from its inception until her recent retirement. I interviewed Dolores in-person at Lakehead University. In 2004, I was a teacher candidate in one of the courses that she taught. During the interview, she shared with me that she knew that non-Indigenous teachers needed to learn about teaching Indigenous students from her experience working with teachers in different schools. She shared the following story:

I started visiting classes in 1975 and talking about the contributions of Native people in Ontario; they didn't all live in teepees, build totem poles, and ride horses- that was their stereotype! They all had different jobs, and different things. I started talking to them all and I visited lots of classrooms. Teachers were happy to have me come in for an hour and do their work and I could see the enthusiasm of the children, from grade 1 to 8. But the teachers still had misunderstandings.

Knowing that more was needed, and with support of the Faculty of Education Dean, mandatory courses on Indigenous Education were introduced at Lakehead University's teacher education program.

Dolores created a visual map for me of her course outline that had the words *Aboriginal Education* in the centre and five headings surrounding it. The headings included: introduction, communications techniques, diversity of Indigenous peoples, philosophies, and test. After her introduction, she would discuss important communication techniques, explaining that many non-Indigenous teachers needed to understand the different ways that Indigenous students learn. For example, she explained that when a student is uncomfortable with direct eye contact, it is important for teachers to remember that the student may still be listening, watching, and learning. Teachers do not have to force students to behave in a manner that is uncomfortable for them, but instead can develop an awareness of the many ways that students learn.

Dolores also spoke about the importance of humour in the classroom: “Humour is used to stave off embarrassment, make fun, laugh at yourself, poke jokes at yourself.” She said that humour can help with shyness or to “correct inappropriate behaviour.” When teachers are unaware of other cultural communication norms it can create a cultural mismatch between teacher and student. In Dolores’s personal teaching experience, she has witnessed this cultural mismatch occur many times between non-Indigenous teachers and Indigenous students. She modeled these different types of communication techniques through the use of storytelling. She said:

I use those techniques in my teaching in storytelling, by example, and the work that they have to do. Sometimes they think, geez you know this course is only worth a quarter why do we have to do so much work? I said: ‘That’s how you are going to learn, that’s how you’ll learn from me, and that’s why you do it.’

It was evident from Dolores’s stories that she believed in providing teacher candidates with as much knowledge as she could about the diversity of Indigenous peoples. In her classes,

she would discuss the difference between status and non-status, urban and community, and the difference between First Nation, Métis, and Inuit peoples and communities. While listening to Dolores share her stories, I felt she emphasized that teacher candidates must not make assumptions about Indigenous students, but instead, should get to know how Indigenous cultures impact students in school.

Dolores did not use the term reflection specifically in her responses, and yet, a part of her course outline was on teacher candidates' personal philosophies. She said that philosophy includes: "Your motives, why you motivate children, and how you can motivate children." She added that: "You find ways to motivate children through your own techniques, and your beliefs in life." This approach resonates with the principles of self-reflection (Tann, 1993).

Dolores utilized stories and storytelling as her primary approach to the course. She said that she shared many of her personal stories with teacher candidates and encouraged teacher candidates to share their stories too.

Instructor: Dr. Sandra Wolf. Dr. Sandra Wolf is Anishinaabe from Turtle Mountain in North Dakota. I interviewed Sandra over the phone as she had recently retired. She taught 12 sections of the course between 2007 and 2016. I had only met Sandra a few times at Lakehead University prior to this study. We made time prior to our interview for informal conversations to develop a comfort and familiarity with each other. Sandra is the only instructor in this study who originated from the United States. She saw her role as course instructor differently due to her position as "a visitor to Canada." She explained:

I did not have a relationship with the students that could be clearly demarked as expert-novice. We were not one expert and 40 novices, because I was a visitor to Canada. So,

we could turn almost any activity into something self-reflective because I was not bashful at all about asking them, ‘Well, what do you think? How does this work for you?’

In discussions about self-reflection, Sandra referred to an instructional activity that she often used in class called *Take a Stand*. She would post four signs in four different locations in the classroom, each with a different level of agreement. She would read four statements to teacher candidates based on a newspaper article or book. Each person would have to get up and relocate to a sign that indicated: ‘I agree’, ‘I disagree’, ‘I need more information’, or ‘I would like to rephrase the statement.’ She would ask, “What is the basis for your agreement?” And teacher candidates would have the opportunity to share their perspective and ideas. She explained that:

There were absolutely no right or wrong answers. All opinions expressed were valid.

This activity gave students an opportunity to speak in class, to articulate an opinion that no one could discount. And they could revise their opinion at any point.

Similar to other instructors in this study, Sandra described the emphasis on promoting intercultural ideas and perspectives in her instruction. Sandra employed a variety of assignments and strategies in her teaching; however, the two assignments that she said remained staples in her courses were the development of a 15 minute one-act play and the creation of a timeline of events in Canadian history related to Indigenous Education. In the creation of the timeline, teacher candidates decided the first and last date and would add events in-between those dates that they believed to be important and relevant. She noticed that teacher candidates would be creative and decide what events were important and why.

The development of the 15 minute one-act play required teacher candidates to find primary sources from “Indian Affairs, or reports that were written by the superintendents of the

schools, and also Hudson Bay Post records,” and students would create their own interpretation from those sources. Sandra elaborated on the impact of primary sources as opposed to secondary sources, saying:

The use of primary sources rather than secondary sources has some positive influences on the way students view the data they have found. From the series of historical school reports maintained by the Indian Department, for example, month to month patterns start to emerge regarding the number of children who died of influenza or died of other causes. Were parents notified? Where were the children buried? If the Aboriginal Education students read in a secondary source, a textbook, for example, that children died in Residential Schools, the impact and the character of life in a Residential School are not nearly as apparent.

The development of the one-act play was a readers’ theatre that used minimal sets and costumes. And yet, she found that the process of taking primary sources and creating plays had the greatest impact on teacher candidates’ “attitudes and understanding.” Sandra explained that “there is something about arts-based education, in general, and in drama, in particular, that allows and encourages empathy and the capacity to move outside of the individual’s typical cultural boundaries.” The plays were so well received that Sandra said it inspired some teacher candidates to share them with others. She said that some teacher candidates would ask other professors to come and watch their plays or perform them outside of the classroom:

On more than one occasion, students would say: ‘Let’s not just do this in the classroom. Why can’t we use the stage in the auditorium?’ So, one term we used the stage and we served a small potluck buffet; the students wanted to do that. The students presented their

one-act plays, presented them to their classmates and some invited guests and served the buffet afterwards.

The development of a one-act 15-minute play from primary sources would typically take a considerable amount of time, as Sandra noted that many teacher candidates would start “from the most basic of understanding.” And yet, the use of arts-based learning created a learning environment that promoted reflection, critical thought, and imagination.

Discussion

The five instructors in this study provided multiple examples of instructional strategies and assignments used in the *Aboriginal Education* course. During analysis of the interviews, the themes of *story*, *land*, *art*, and *reflection* emerged from their examples of effective instructional strategies and assignments. It was evident that providing teacher candidates with theory and strategies appropriate to the issues and perspectives of Indigenous Education was a priority for each instructor, yet the instructional strategies employed seemed as significant as the information itself. Not all of the instructors used story, land, art, or reflection in their course design, but with each of these strategies described by more than one participant, they are worth exploring as effective instructional approaches for Indigenous Education courses.

In the narratives of each instructor, the use of story as pedagogy is evident, something found strongly in Archibald (2008). Their use of personal stories made explicit their epistemologies and pedagogies to teacher candidates in the course. Lex Scully, the only non-Indigenous instructor in this study, took time in her course to share her personal story and her position as a White educator and a Settler in Canada. She established the type of critical examination of race, privilege, and oppression that she expected from teacher candidates in the

course. The Indigenous instructors shared stories to assist teacher candidates in understanding issues in education from Indigenous perspectives. Both Laura Buker and Dolores Wawia heavily relied on stories throughout their instruction. While Dolores primarily shared her personal stories, Laura integrated personal stories and other peoples' stories through media, legends, and autobiographies by Indigenous authors.

The use of stories, for all instructors, enhanced their instruction and provided a method for teacher candidates to connect with course content by sharing their own stories in response. The multiple ways in which story was incorporated resonates with literature on Indigenous Education course instruction (Aveling, 2006; Dion, 2007; McInnes, 2017). The use of story in this study is perceived as an effective method for non-Indigenous teacher candidates to learn from Indigenous communities and perspectives. Stories create a bridge to connect and compare their experiences and understanding with the perspectives offered in the course (Aveling, 2006). Since most teacher candidates are non-Indigenous with limited knowledge of and experience with Indigenous communities, course instructors draw on stories to bring Indigenous communities and perspectives into the classroom. Though each instructor used story differently, the overall purposes were similar.

Land was a topic that was primarily discussed by Lex Scully, Laura Buker, and Paul Cormier. During the interviews, all three instructors spoke about the importance of taking teacher candidates out of the classroom to learn about, and from, the land that surrounds them. For example, learning local and traditional uses of plants, and landmarks from the local Indigenous perspectives. In a published article, Scully (2012) refers to this type of learning as place-based learning. She explained that:

Places are the literal common ground. Exposing the ways that a different experience of a place and the signifiers that make meaning out of place can create rich dialogue and understanding across perspectives. A complex and rich understanding of place can change the view from where one is standing. (p. 152)

In Lex's courses, she included field trips to local landmarks to identify and reflect on different perspectives and the significance of places in Thunder Bay and Orillia. Places students may have walked passed numerous times were now being explored from an Indigenous perspective. This provided teacher candidates with the opportunity to increase their awareness and understanding of the relationships between people and land, as well as relationships between Indigenous and non-Indigenous people in the community.

Paul Cormier incorporated land-based learning differently, as he arranged for a local Elder to facilitate a nature walk on the land surrounding Lakehead University and to discuss how plants are used as medicines. Teacher candidates were given the opportunity to explore plants from an Indigenous persons' perspective. In Laura Buker's class, teacher candidates were encouraged to explore the land that surrounded them as part of their iMovie assignments. Learning from land and community is described by Dion (2007) and McInnes (2017) who both, in very different ways, emphasized the importance of providing teacher candidates with knowledge of the Indigenous community that surrounds them. Most often, initial teacher education courses are relatively short, creating logistical challenges for instructors to arrange for learning experiences outside of the classroom. Still, both Paul Cormier and Laura Buker recommended that Indigenous Education courses should continue to look for more ways that teacher candidates can learn outside of the classroom and get onto the land.

Another theme that emerged was the use of art and arts-based learning projects. Both Sandra Wolf and Laura Buker drew upon art and arts-based learning in their instructional strategies throughout the entire course. Although Sandra described the timeline and one-act play assignment as staples in her courses, she also shared with me other assignments that all had an art component, such as the creation of fictional letters or dioramas. Laura also frequently used art in her class. She shared that she would often play music or display artwork by Indigenous artists at the beginning of the class as a way of enriching the classroom with different forms of Indigenous representation. In Dion's (2007) description of her instruction of an Indigenous course, she also incorporated poetry, visual art, and films by Indigenous artists. While Dion incorporated artistic work by Indigenous authors and artists, the focus on artistic expression was not found to be explicitly described in literature in other Indigenous Education courses. Sandra and Laura incorporated assignments that asked teacher candidates to share their knowledge through artistic expression as they wanted teacher candidates to engage with course material in a deeper and more meaningful way. It was clear that they believed that a part of their task as instructors was to utilize instructional strategies and assignments that could reach teacher candidates' hearts and minds, and that incorporating art and artistic expression was one way to do that.

The use of reflection was discussed by all instructors. It was the only instructional strategy that was specifically asked about in the interviews. Whether reflection was used independently or in-relation to other strategies or assignments, most course instructors used reflection as a way for teacher candidates to receive new information, question prior beliefs or assumptions, and most importantly, engage with course material on a personal level. In Paul's course, reflection was the foundation of the course with specific assignments that asked teacher

candidates to think about their personal perspectives in relation to the topics and issues addressed in the course. Laura, Lex, Dolores, and Sandra embedded reflection throughout the course, asking teacher candidates to be reflective about their personal position and connection to course content – a use of reflection that mirrors Aveling (2006) and Dion's (2007) instructional strategies. For all of the instructors, the use of reflection was often in combination with story, land, or art, with the purpose of eliciting deeper thought, critique, and discussions about Indigenous Education. The combination of strategies echoes other Indigenous Education course instructors (Aveling, 2006; Dion, 2007; Iseke-Barnes, 2008; McInnes, 2017), as each tried to find ways to provide knowledge of Indigenous peoples, cultures, histories, and perspectives, as well as to open hearts to untangle and dismantle the negative stereotypes and prejudices towards Indigenous peoples in Canada.

What is most evident from each instructor is that Indigenous Education courses are not simply courses on history and theory; they are conversations about the events and relationships that have impacted and continue to impact people's lives. The use of story, land, art, and reflection are identified as effective strategies for preparing teacher candidates to teach Indigenous students, and to work with, and integrated Indigenous content. Though each instructor's course content differed, the overall aim of each instructor resonated with McInnes (2017), a Native American instructor, who wrote:

My hope was to create a safe space for the exchange of intercultural ideas, the deconstruction of stereotypes, the development of required knowledge and skills, and an opportunity for everyone to positively learn about Indigenous peoples and celebrate our collective diversity. (p. 150)

Creating a learning space, instructional strategies, and learning activities that were most effective was an aim that was evident in the five course instructors in this study.

Conclusion

Indigenous Education courses in initial teacher education are tasked with an almost impossible objective. This objective is to (a) provide teacher candidates with knowledge, facts, and information on Indigenous histories and cultures, and the impact of non-Indigenous colonization and assimilation; (b) identify and break down stereotypes, myths, and deeply rooted prejudices; and (c), provide the skills and resources to develop appropriate lessons and pedagogical practices throughout their teaching career. Despite this seemingly in-surmountable task, many Indigenous Education instructors have taken up the challenge and have offered courses that they hope are effective for teacher candidates. At Lakehead University, the mandatory *Aboriginal Education* course has been lengthened from to 36 contact hours in the new two-year teacher education program. As new courses and initiatives continue to develop in initial teacher education programs across Canada, a look at the ways that instructors precede provides insight into the strategies, practices, and approaches that have been developed, practiced, and identified as being effective. The use of story, land, art, and reflection provided in this paper are in no way an exhaustive list of possible pedagogical strategies. As suggested by instructors, Indigenous Education courses can and should always look at ways of expanding and strengthening their role in initial teacher education.

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Article 3: Teacher candidates' knowledge, interest, and attitudes towards a mandatory *Aboriginal Education* teacher education course

Abstract

In the release of the *Truth and Reconciliation Commission: Calls to Action* (2015), schools across Canada are called upon to develop and implement Indigenous content and learning resources, and to ensure that teachers are prepared to meet the needs of Indigenous students. This requires teachers to be knowledgeable and capable of integrating appropriate Indigenous content and pedagogical practices – a readiness that can and should be fostered in initial teacher education (Milne, 2017). In this study, a mixed methods approach was used to examine teacher candidates' knowledge of, interest in, and attitudes towards a mandatory *Aboriginal Education* course in teacher education from teacher candidates and course instructors' perspectives. Results from a Likert scale survey administered at the beginning and end of two sections of *Aboriginal Education* indicated that teacher candidates felt more knowledgeable by the end of the course, and maintained a fairly strong interest in, and positive attitude towards, the course. Results from course instructors provided additional and, at times, contradictory information, describing the course as limited and, at best, an introduction to the issues and perspectives within Indigenous Education. The findings in this paper support mandatory Indigenous Education courses in teacher education and call on faculties of education and school boards for further learning opportunities with Indigenous content resources, to ensure that teachers receive learning opportunities and on-going support as they develop their capability to integrate appropriate and relevant Indigenous content into their teaching practice.

Keywords: Indigenous Education; Teacher education; mixed methods research

Introduction

In the *Truth and Reconciliation Commission: Calls to Action* (2015), schools across Canada are called upon to develop and implement: “Kindergarten to Grade Twelve curriculum and learning resources on Aboriginal peoples in Canadian history, and the history and legacy of residential schools” (p. 7). This objective, alongside the need to prepare teachers to meet the needs of Indigenous students, requires teachers to be knowledgeable and capable of integrating accurate and appropriate Indigenous content. Milne (2017) found that teachers who were reluctant to integrate Indigenous content lacked both knowledge and confidence, recommending that further preparation be provided in teacher education and in professional development. In addition to broadening their knowledge of Indigenous peoples, cultures, and histories, teachers need to become open and willing to learn new perspectives – an attitude that can and should be fostered in teacher education programs (Milne, 2017).

This paper explores teacher candidates’ knowledge of, interest in, and attitudes toward, the 18-hour mandatory *Aboriginal Education* course in Lakehead University’s teacher education program. Drawn from a larger study that examined the role of self-reflective practices in the course, this paper explores the perspectives of teacher candidates in two sections of *Aboriginal Education*, and the perspectives of five instructors with extensive experience teaching the course.

Teacher candidates who participated in this study (n=44) completed a pre- and a post Likert scale survey at the beginning and end of two sections of *Aboriginal Education* in the fall 2016 semester. I attended all sessions of both sections of the course, as a *participant as observer* (DeWalt & DeWalt, 2002) and spoke informally with teacher candidates about the course. I also interviewed three teacher candidates after they completed both the course and their first teaching placement. The combined data indicate that most teacher candidates in both sections had a strong

interest in, and positive attitude towards the course content. The teacher candidates also reported that they greatly increased their knowledge of Indigenous content by the end of the course.

Though these results support the efficacy of the *Aboriginal Education* course in the preparation of teacher candidates, interviews with five instructors of the *Aboriginal Education* course provided an additional perspective on teacher candidates' knowledge of, and disposition towards the course content. The majority of teacher candidates in this study were non-Indigenous, and, similar to course instructors' experiences with teacher candidates, collectively reported beginning the course with varied (limited to considerable) understanding and awareness of Indigenous peoples, Indigenous cultures, and Indigenous histories. Instructors identified teacher candidates' prior experiences (e.g., living in southern Ontario vs. northern Ontario), knowledge of course content, and perception of the course's relevancy as factors that impacted their course design and instruction.

This paper explores teacher candidates and course instructors' perspectives and uses these perspectives to discuss the realities and tensions of developing teacher candidates' knowledge and capability to integrate Indigenous content in an Indigenous Education course. Following a brief explanation about terminology, I present an overview of the Canadian Residential School system and the Truth and Reconciliation Commission to provide context from which to argue the necessity, in initial teacher education, of teacher preparation courses focused on Indigenous cultures, histories, and perspectives.

Terminology

This study is centered on a course at Lakehead University entitled *Aboriginal Education*. The term Aboriginal is used in Canada when referring to the collective groups of First Nation,

Métis, and Inuit peoples (The Constitution Act, 1982). Participants in the study used the terms Indigenous, First Nation, and Native to describe the First Peoples of Canada, and for the purposes of this paper these are used interchangeably when quoted directly; otherwise, the more widely accepted term “Indigenous” is used.

In the Likert scale surveys that were administered to teacher candidates, the terms First Nation, Métis, and Inuit [FNMI] were used to align with the terminology within the *Aboriginal Education* course and to affirm the diversity amongst the Indigenous communities in Canada. The phrase ‘*FNMI histories, cultures, and perspectives*’ was used in the survey statements and is used in this paper to represent all aspects of the course content.

Residential Schools and the TRC

In 2008, following numerous lawsuits against Churches and the federal government, the Truth and Reconciliation Commission of Canada [TRC] was established with the dual purpose of educating the Canadian public about the Indian Residential School system and promoting national reconciliation. In 2015, The TRC released its final report calling on the federal and provincial governments, child welfare agencies, and educational institutions to work towards reconciliation between Indigenous and non-Indigenous people and communities. The Canadian Indian Residential Schools system officially began in 1831 with the opening of the Mohawk Indian Residential School in Brantford, Ontario, and remained in operation until 1996 when the last band-run Residential School closed in Punnichy, Saskatchewan (Miller, 2003; TRC, 2012).

The primary purpose of Residential Schools was isolation and assimilation as children were removed from their family homes and communities. Within the schools, students were subjected to school policies, rules, and disciplinary actions that were designed to assimilate students into Christian doctrine and Western society (Thorner & Frohn-Nielsen, 2010; White &

Peter, 2009). Many students were subjected to harsh beatings, physical and sexual abuse, malnourishment, and sub-standard health care (Schissel & Wotherspoon, 2003). Some refer to Residential Schools as the *Canadian Holocaust* since almost half of the children forced to attend the government-funded schools died or disappeared (Thorner & Frohn-Nielson, 2010). The exact number may never be known as the TRC found that many of the schools stopped reporting children who died in, or disappeared from, their schools. The impact of Residential Schools was immediately negative, worsening as “former students-damaged by emotional neglect and often by abuse in the schools-themselves became parents” (TRC, 2012, p. 78). Many Indigenous communities, families, and individuals across Canada are working to heal and re-build what was negatively impacted by Residential Schools (Reagan, 2010; TRC, 2012).

It can be difficult for teacher candidates to learn about and relate to knowledge about Residential Schools, especially when it was not known that schools were used as a tool for assimilation (Schissel & Witherspoon, 2003). This knowledge, though emotionally challenging, is necessary to learn as the Residential school legacy significantly impacts Indigenous communities today. Teacher education programs can provide teacher candidates with knowledge and resources on Residential Schools and the impact on Indigenous and non-Indigenous relationships. Still, it is up to teacher candidates to be willing to continue to engage with resources to develop appropriate curriculum; their attitudes may be more important than their current knowledge.

Indigenous Education and Teacher Preparation

Preparing teachers in Indigenous Education remains as urgent today as it did four decades ago when the National Indian Brotherhood/Assembly of First Nations (1972) first called upon

the Canadian federal government and education institutions to improve teacher preparation on inter-cultural pedagogies and the integration of Indigenous content. Reiterated in the *Truth and Reconciliation Commission: Calls to Action* (2015), teacher education in Indigenous histories and perspectives is a component of teacher education that requires further attention and improvement. Research on Indigenous Education in teacher education programs across Canada (Blimkie, Vetter, & Haig-Brown, 2014; Dion, 2007; Mashford Pringle & Nardozi, 2013; Nardozi, Restoule, Broad, Steele, & James, 2014; Scully, 2012; Vetter & Blimkie, 2011) and internationally (Aveling, 2006; Labone, Cavanagh, & Long, 2014; McInnes, 2017) explores the obstacles and possibilities of incorporating Indigenous Education in initial teacher education. Many teacher candidates across teacher education programs continue to arrive with little knowledge prior to the courses or workshops provided in their teacher education, and continue to feel hesitation and uncertainty, or are resistant to integrating Indigenous content into their teaching practice regardless of how they are introduced to the issues and perspectives (Aveling, 2006; Blimkie, Vetter, & Haig-Brown 2014; Mashford-Pringle & Nardozi, 2013; Tupper, 2011).

Nardozi and Mashford Pringle (2014) examined teacher candidates' responses to Indigenous workshops and presentations in the Ontario Institute for Studies in Education at the University of Toronto's teacher education program. They found that while the information helped some teacher candidates feel 'comfortable' about teaching Indigenous content, for many it did not. A discomfort or hesitation by teacher candidates was also found in Blimkie, Vetter, and Haig-Brown's (2014) study of York University's Faculty of Education program (Barrie site). After Indigenous content and pedagogies were 'infused' in education courses through guest speakers, literature, media, and field trips, the authors found teacher candidates had a mixed response with some indicating lack of confidence to teach Indigenous content.

Tupper (2011) studied teacher candidates' knowledge and understanding of Treaties and treaty education at the University of Regina, where she found that even though some teacher candidates recognized the importance of treaty education, many felt unprepared and unsure of how to include treaty education in their teaching practice. Information on Indigenous Education was delivered by a variety of methods, and yet there remained teacher candidates who felt unsure how to integrate Indigenous content into their teaching practice.

Even with teacher education, teacher candidates are entering teaching with uncertainty, discomfort, and a general lack of confidence to integrate Indigenous content. Without further learning opportunities and a personal interest to continue learning, some teachers may choose to avoid integrating Indigenous content or worse, provide false information due to a lack of knowledge (Milne, 2017). This study explores the realities and tensions of teacher candidates' knowledge of, and disposition towards, Indigenous Education in teacher preparation from the perspectives of teacher candidates and course instructors. Previous research on Indigenous Education in teacher preparation is written from an individual instructor's perspective (Aveling, 2006; Scully, 2012; McInnes, 2017) or from teacher candidates' perspectives (Mashford-Pringle & Nardozi, 2013). This study compares findings from instructors and teacher candidates to provide a robust exploration of preparing teacher candidates to be knowledgeable and capable of teaching Indigenous students and integrating Indigenous content with mandated curriculum.

Methodology

The genesis of this study is my experience as a White teacher in a remote First Nation community in northern Ontario, and my Master of Education research that connected successful teaching practices in remote First Nation communities with *who* a teacher is as a person, and willingness to learn (Oskineegish, 2013, 2015). Building on the findings of the Master's study,

my dissertation research utilized a mixed methods approach that combined quantitative Likert scale pre-and post-course surveys and 3 open-ended questions on the post-course survey with semi-structured interviews, student artifacts, and my reflective journaling to examine how self-reflective practices impact teacher candidates' understanding of Indigenous Education in a teacher education program. Here, I describe a component of this study and the methods used to explore teacher candidates' knowledge of, and disposition towards, Indigenous Education at the beginning and end of a mandatory *Aboriginal Education* course.

A 5-point Likert scale survey developed by the author was administered to forty-five teacher candidates in the first and last week of two sections of *Aboriginal Education*. Twenty-two teacher candidates were in the undergraduate concurrent education program at Lakehead University and completed the 18-hour course in twelve weeks. Twenty-three teacher candidates were in the one-year education program at Lakehead University and completed the 18-hour course in nine weeks, followed by a five-week teaching placement. The purpose of the survey was to determine teacher candidates' self-reported knowledge of, interest in, and attitudes towards course content at the beginning of the course and to compare this with the results at the end of the course. Likert scale surveys are a recommended measurement tool for researchers who are attempting to elicit the attitudes and opinions of large numbers of participants within a short timeframe (Nardi, 2006). The surveys were comprised of 11 statements, with teacher candidates asked to indicate their level of agreement with each statement. The post-course survey also included three open-ended questions focused on course assignments, self-reflection, and course content. Forty-four of 45 teacher candidates completed the Likert scale survey in the first week, and 39 of 45 completed the survey in the last week of the course (six teacher candidates were absent).

At the end of the fall term, I invited the twenty-three teacher candidates who had completed their teaching placement to participate in an interview about their teaching experience. Three teacher candidates responded and shared their perspectives through semi-structured interviews. Although there was a low response rate to the interviews, most of the teacher candidates in the two sections participated in this study in a variety of ways (i.e., 44/45 participated in the pre-course survey and 39/45 participated in the post-course survey; 25/45 participated in open-ended questions on the post-course survey; and 7/45 provided reflection assignments for analysis). I speculate that the low response rate to the interviews may have been due to teacher candidates feeling too busy in their new winter term courses to go back to conversations about the *Aboriginal Education* course.

In addition to the three interviews with teacher candidates, semi-structured interviews were also conducted with five instructors who had taught the *Aboriginal Education* course recently and for more than one semester. Semi-structured interviews are engaged conversations between researcher and participant that do not always follow the pre-determined questions (Kovach, 2009; Savin-Baden & Major, 2013). The guiding interview questions for course instructors and teacher candidates were provided to the participants prior to the scheduled interview. By providing the guiding questions prior to the interviews allowed participants time to think about what they felt was important to share on the topic and to give more thoughtful response (Kovach, 2009).

The three teacher candidate interviews—and two instructor—interviews took place in person. The remaining three instructor interviews conducted by telephone. Interviews with teacher candidates lasted approximately twenty minutes, and interviews with instructors lasted between one and two-hours in length. Interviews with teacher candidates and instructors began

with informal conversations to ensure familiarity and clarity of purpose of the study (Creswell, 2014). With the exception of one interview with a teacher candidate, the responses to the interview questions were audio-recorded and transcribed. The audio recorder failed to record the teacher candidate's interviews and hand-written notes were made. The transcribed interviews with course instructors were member checked (Merriam & Tisdell, 2016; Shenton, 2004). Course instructors were sent a copy of the transcribed interview by email and provided time to make additional changes. Four instructors responded and two provided editorial changes that clarified their position or response.

In both sections, I attended all of the *Aboriginal Education* sessions as a participant as observer (Babchuk, 1962; DeWalt & DeWalt, 2002). During this time, I made reflective notes in a journal and interacted with teacher candidates informally to build relationships and understanding of their experience in the *Aboriginal Education* course and the education program. Journal entries included my own personal thoughts and reactions from participating in the course. The purpose of journaling was not to methodically record classroom activities, student or instructor comments, or events as is typically associated with classroom observation (Savin-Baden & Major, 2013). Instead, it provided me a space to record my thoughts, insights, conversations, or broad ideas that emerged during the research process (Cole & Knowles, 2000).

In a mixed methods study, data analysis from qualitative and quantitative methods provide “elaboration, illustration, enhancement, and clarification of the findings from one analytical strand [i.e., qualitative] with results from the other analytical strand [i.e., quantitative]” (Onwuegbuzie & Combs, 2010, p. 411). Analysis of qualitative and quantitative data were completed separately following the protocols and procedures of each methodological paradigm. Analysis of the quantitative survey data included descriptive statistics, and the comparison of

two sets of scores and the relationships of the variables *knowledge*, *interest*, and *attitude* through an SPSS data analysis software program (Greasley, 2008; Nardi, 2006). Analysis of the qualitative data from both teacher candidates' and instructors' interviews were coded in Atlas. ti, a qualitative coding software program. Interviews were coded for themes and phrases that were repeated across several interviews (Onwuegbuzi & Combs, 2010; Creswell, 2014). The findings from the quantitative and qualitative methods provided complimentary data.

In a mixed methods study, trustworthiness is addressed from two different theoretical underpinnings. In most quantitative studies researchers must ensure reliability, validity and generalizability (Belli, 2009; Creswell, 2014), whereas in qualitative studies, a researcher aims for persuasiveness, authenticity, and plausibility (Bulter-Kisber, 2010). In this study, the quantitative aspect centers on a Likert scale survey that is a researcher-created measure. Reliability and validity were addressed through an internal consistency that measured how well the items on the survey measured what they were intended to measure (Henson, 2001). The questions were designed to measure the general themes of participants' self-reported knowledge of, interest in, and attitude towards Indigenous Education, and were repeated in similar constructs to test for consistency in participant responses. During the development of the survey I consulted with five peers and faculty members in the education field and made adjustments after each person's feedback. Trustworthiness was addressed through a triangulation of research processes (i.e., quantitative and qualitative data collection) and sources (i.e., teacher candidates, course instructors, and researcher's reflective journal).

All teacher candidates who participated in this study remained anonymous; only general information is provided in the findings section on teacher candidates who were interviewed. Teacher candidates were not asked if they identify as a person with Indigenous ancestry.

Through informal conversations with teacher candidates in both sections of the course, it became evident that nearly all were non-Indigenous. Below, I provide a brief background on the instructors who participated in this study.

Dr. Paul Cormier is a First Nation instructor from Red Rock Indian Band. He had taught eight sections of *Aboriginal Education* at the time of the interview. My observations in this study took place in two sections of his *Aboriginal Education* course. Paul has an extensive career in cross-cultural training and continues to teach Indigenous Education courses at the undergraduate and graduate level.

Doctoral candidate Lex Scully is a non-Indigenous woman of Celtic heritage. She had taught 17 sections of *Aboriginal Education* and is the only participant to have taught the course at Lakehead's Thunder Bay and Orillia campuses. Lex is currently completing her dissertation in which she explores place-based practices in Indigenous Education courses. She was the only participant who was not a tenure-track or tenured faculty member.

Dr. Iolehawk Laura Buker is an Indigenous professor who identifies as Stó:lō, people of the river. She identifies with her grandmother's family who came from the great salmon corridor of northern British Columbia in the Big River district nation. Laura taught *Aboriginal Education* consistently for eight years, from its inception in 2007 until her recent retirement.

Dolores Wawia (also known as 'Frog Lady') is Anishinaabe from Gull Bay First Nation. Her early work in education was instrumental in the implementation of Indigenous content in Lakehead University's Faculty of Education since the 1980s. She taught the course from its early versions until her recent retirement.

Dr. Sandra Wolf is Anishinaabe from Turtle Mountain in North Dakota. Sandra contributed to the development of the Aboriginal Honours Bachelor of Education program and

taught courses at the graduate and undergraduate level. She taught 12 sections of *Aboriginal Education* intermittently between 2007 and her recent retirement.

I am thankful to all participants who generously shared their time, experiences, and perspectives with me throughout this study.

Findings and Discussion

I begin with descriptive statistics on teacher candidates' responses to three survey statements that best represented their self-reported knowledge of, interest in, and attitude towards Indigenous Education at the beginning and end of the *Aboriginal Education* course. Teacher candidates' responses to other statements do not contradict the results, as some were used for the purpose of validity, and some better represent topics with little if any relevance to this paper. The differences in the two sets of scores are discussed, followed by an exploration of the relationships between the *knowledge*, *interest*, and *attitude* variables. Further insight on teacher candidates' interest and attitudes towards course content is discussed from three teacher candidates' interviews and from my observations in two sections of the *Aboriginal Education* course. This is followed by course instructors' perspectives of teacher candidates' knowledge and disposition towards course content.

Teacher candidates responded to the survey statement: *I am knowledgeable about FNMI histories, cultures, and perspectives* at the beginning (n=44) and end (n=39) of the course. Results (see Table 1) from the beginning of the course indicate that 39% of teacher candidates did not consider themselves knowledgeable about Indigenous histories, cultures, or perspectives. Twenty two percent identified as knowledgeable and 39% responded with 'neutral'. It is unknown why close to half the class responded with 'neutral'. It is conceivable that at the beginning of the course teacher candidates felt unsure about their knowledge or were unwilling

to admit a lack of knowledge. The same number of teacher candidates indicating a lack of knowledge, echoes previous research about teacher candidates' prior knowledge of the aforementioned Indigenous content (Blimkie, Vetter, & Haig Brown, 2014; Dion, 2007; Mashford-Pringle & Nardozi, 2013).

At the end of the course, 77% indicated that they were knowledgeable about FNMI histories, cultures, and perspectives. No one disagreed with the statement and 15% responded with 'neutral'. This response to the statement in the survey received the greatest positive change and is an encouraging indication that the *Aboriginal Education* course, with Paul Cormier instructing, resulted in participants reporting an increase in knowledge. Still, this result alone does not ensure that teacher candidates are fully capable and willing to develop and integrate Indigenous content.

Table 1

Teacher Candidates Responses to the Statement "I am knowledgeable about FNMI histories, cultures, and/or perspectives."

Surveys	Rating Scale				
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Pre-course (n=44)	9% (4)	30% (13)	38% (17)	21% (9)	2% (1)
Post-course (n=39)	0% (0)	0% (0)	15% (6)	77% (30)	8% (3)

Teacher candidates were asked to respond to eight combined statements in the surveys that assessed their interest in, and attitude towards Indigenous content in teacher preparation at the beginning and end of the course. Results from teacher candidates' response to the survey statement: *I am interested to learn more about FNMI histories, cultures, and/or perspectives* (see

Table 2), indicate that the overall response was generally positive, with only a slight difference between the pre and post surveys. In both surveys, 18% responded ‘neutral’. These identical percentages indicate the possibility that nearly one-fifth of teacher candidates enter the course uncertain of their interest in learning such content, and the same percentage successfully completes the course with a corresponding level of uncertainty. This is a challenge that is consistent with previous studies on teacher candidates’ response to Indigenous content in teacher preparation (Mashford-Pringle & Nardozi, 2013; Tupper, 2011).

Table 2

Teacher Candidates’ Responses to the statement, “I am interested to learn more about FNMI histories, cultures, and/or perspectives.”

Surveys	Rating Scale				
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Pre-course (n=44)	0% (0)	0% (0)	18% (8)	50% (22)	32% (14)
Post-course (n=39)	0% (0)	0% (0)	18% (7)	46% (18)	36% (14)

Similarly, results from teacher candidates’ response to the survey statement: *Learning about FNMI histories, cultures, and/or perspectives is an important aspect of my preparation as a teacher* (see Table 3), were largely positive: 80% (agree and strongly agree) in the pre-course survey and 87% (agree and strongly agree) in the post-course survey. Even though all teacher candidates were required to complete the *Aboriginal Education* course regardless of their interest or professional stream, a majority indicated a strong interest to continue learning and viewed the course as a crucial aspect of their teacher preparation.

Table 3

Teacher Candidates' Responses to the Statement "Learning about FNMI histories, cultures, and/or perspectives is an important aspect of my preparation as a teacher."

Survey	Rating Scale				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Pre-course (n=44)	0% (0)	2% (1)	18% (8)	46% (20)	34% (15)
Post-course (n=39)	3% (1)	0% (0)	10% (4)	56% (22)	31% (12)

The survey results were analyzed in SPSS to measure the knowledge, interest, and attitude means in the first and second survey. The results confirm that only the knowledge mean resulted in a statistically significant difference between the first and second survey $t(77.62) = -2.63$, $p = .010$. There was no significant difference in the interest mean $t(81) = -1.55$, $p = .125$, or the attitude mean $t(81) = -.65$, $p = .521$. The mean and standard deviation are provided in Table 4.

Table 4

Mean and Standard Deviation for Pre-course and Post-course Survey.

	Pre-course m (sd)	Post-course m (sd)
Knowledge	2.86 (.87)	3.29 (.62)
Interest	3.90 (.52)	4.08 (.57)
Attitude	4.12 (.59)	4.20 (.56)

In the next step, I correlated knowledge, interest, and attitude means in the final survey and found that teacher candidates' interest and attitude means had a high correlation, $r(39) = .74$, $p < .001$. The results also showed that knowledge had no correlation with interest, $r(39) = .14$, $p < .387$, or attitude, $r(39) = -.08$, $p < .606$. This finding implies that survey results found no

causation between teacher candidates' knowledge of, interest in, and attitudes towards the course.

Over several questions, there were a small number of teacher candidates who indicated a low interest or attitude towards Indigenous course content at the beginning and end of the course. Although the survey results do not indicate if the responses were from the same teacher candidates, informal communication with teacher candidates during the course and formal interviews with three teacher candidates after the course provided some insight on the survey responses about their interest in, and attitude towards, the course.

Three non-Indigenous teacher candidates who completed the surveys discussed whether their interest in course content shifted by the end of the course. One of the teacher candidates with a strong interest to learn about Indigenous knowledge and perspectives at the beginning of the course completed her teaching placement in an urban school in northern Ontario and taught a class with a large number of First Nation students. When asked if her interest in the course changed, she said: "I think I had the same interest. I went into it going, okay, I'm going to take this because I want to take this, . . . I knew I needed it."

Another teacher candidate who completed her teaching experience in an urban school in the same northern Ontario city had a different reaction to the course. She said that she was initially upset that the mandatory course was "forced" upon her, but about halfway through the course she began to see the value in it. The third teacher candidate completed his placement in southern Ontario and had no Indigenous students that he knew of in his class. His view of the course also shifted by the end of the course. He explained: "At the start, honestly, I was just doing the course because I had to, not that I was dreading it or anything, but at the end of it I was quite into it." When asked about the importance of Indigenous Education courses, he said: "I

think it's important because it can sort of change people's opinions and perceptions. Help them realize that when they become teachers that they should put this in, cause like I said, it's a huge part of Canada.”

During the interviews, all three teacher candidates conveyed their interest to continue learning about Indigenous cultures, histories, and perspectives in their professional practice. The minority of teacher candidates who ended the course with little interest in course content and resistant attitudes towards the value of the course did not respond to the invitation to participate in the interview component of the study. Through informal conversations during the *Aboriginal Education* classes, some teacher candidates shared with me that, though they enjoyed the course, they believed that the course was irrelevant to their professional goals. Several teacher candidates struggled to see how Indigenous content would fit into their intended teaching subjects (e.g., physical-education and biology). Others planned to teach outside of Canada.

In the section that follows, teacher candidates' knowledge of, and disposition towards, the *Aboriginal Education* course are described from the perspective of five *Aboriginal Education* course instructors.

All course instructors said that most teacher candidates in the *Aboriginal Education* course begin with very little knowledge of Indigenous histories, cultures, and perspectives. This perception is consistent with the instructors in other education programs (Blimkie, Vetter, Haig-Brown, 2014; Mashford-Pringle, & Nardozi, 2013). Two instructors said that they were initially shocked by teacher candidates' lack of knowledge, and that this awareness had a direct impact on their course design. Paul Cormier, the instructor for the *Aboriginal Education* course in this study, had this response:

I think I had initially assumed that students would be at a certain level but after a few months I realized that I had to start from scratch; from completely nothing and assume that nobody has any knowledge. So it totally changed the way I was going to do the course.

In response to the scarcity of knowledge they had previously encountered, Laura Buker and Sandra Wolf integrated various activities to elicit teacher candidates' knowledge and ideas at the beginning of the course. Laura shared this example:

One of the things I did in every class was to get into small groups, and I would say: 'I want you in groups to write down everything you know about Indigenous Education and tell me what you did in school and in your K-12 experience'. And then I would say: 'Now we are going to take it to another level, tell me who you know is a First Nation, Métis, or Inuit artist, athlete, musician, poet, writer, actor, and just go with it! Present it in any way that you want.' So, we started right away to build what we knew.

Laura explained that the purpose of the activity was two-fold; to inform her on the knowledge that teacher candidates had, and to give teacher candidates an opportunity to become aware of their own knowledge, or lack thereof.

Sandra encouraged open dialogue throughout the course and she too observed teacher candidates articulate an awareness of their lack of knowledge. She provided this example:

When we were studying Residential Schools and the treatment of children in Residential Schools, they were surprised that this was the first time they had even heard of Residential Schools. They would tell me: 'This is criminal that we did not know this. That I have made it through 14, 15 years of the Canadian education system and this is the first time that this has come up. Where was this in the history classes that I took?'

Her example illustrates the type of knowledge that is absent in many teacher candidates' prior learning and confirms the need for continued integration of Indigenous knowledge and perspectives throughout elementary and secondary school curriculum (Kanu, 2011; TRC, 2015).

When Dolores Wawia first began integrating Indigenous content in the Faculty of Education alongside two others in the early 1980's, she knew from personal experience working with non-Indigenous teachers in the classroom that more training was needed. She explained that "teachers still had misunderstanding of why Native children don't look you in the eyes, why they don't answer questions" and said that some children "communicate differently" or are "motivated differently." She knew that there was no book or resources at the time to help teachers, and that teachers needed guidance before entering the schools. When asked if teacher candidates would begin the course with knowledge or awareness of Indigenous histories, cultures, and/or perspectives, she said: "Of course not, none."

Three instructors observed a notable difference in knowledge and awareness of Indigenous cultures and communities between teacher candidates coming from southern Ontario and those entering the program from northern Ontario. Lex Scully taught the course at Lakehead University's Orillia and Thunder Bay campuses and noticed that teacher candidates in Thunder Bay (northern Ontario) were more aware of Indigenous peoples living around them. She explained:

In Orillia, the contentions were that there were no Indigenous people in the area, that there were no Indigenous people in Toronto In Thunder Bay that's a much harder contention to have because the population is so different. Twenty-five percent of the population in Thunder Bay is Indigenous; this means that you can't say there are no Indigenous people around.

This perception was also shared by Paul, who found that “students in northern Ontario and northwestern Ontario have a little bit more of an understanding” due to relationships and knowledge integrated in schools, “but in southern Ontario, [students] think they don’t have exposure to Native people, and geographically they think Native people don’t live there, which is just completely inaccurate.”

Sandra said that some teacher candidates from southern Ontario were surprised to see First Nations people in Thunder Bay:

Prior to setting foot in Thunder Bay, it had never occurred to most students that they would encounter a First Nations person on the street, much less in a University setting. It had never occurred to them that there were Native people living around them.

Teacher candidates arrive at Lakehead University mainly from southern Ontario and northwestern Ontario. During informal conversations and observations, I found that teacher candidates from northern communities surrounding Thunder Bay more easily responded to the instructor’s questions as well as more readily offered examples of current issues facing Indigenous communities, such as lack of housing, clean water, and educational resources, although I did not observe any noticeable difference in their interest or attitudes towards the course.

Although teacher candidates in this study indicated a significant increase in knowledge at the end of the *Aboriginal Education* course, the limitations of an 18-hour course taught over nine or twelve-weeks were expressed by Paul:

What I try to do is an introduction, because most of them have had no exposure to Aboriginal culture. What I am trying to do is equip them so that when they get to their

work places they're comfortable with some of the language and they know where to go to find support.

Teachers who are willing to look for support and resources on Indigenous content are more likely to develop culturally appropriate lessons (Tompkins, 1998). Providing facts and knowledge is important, and yet, preparing teacher candidates to find resources and integrate Indigenous content requires that they be open and willing to initiate their own learning (Villegas & Lucas, 2002).

All course instructors spoke about the importance of continued learning; for example, Dolores spoke about preparing teacher candidates as teachers:

I really felt like my [*Aboriginal Education* course] is preparing these students on what to expect when you get out there. What are they going to teach, how they're going to teach it, and so on, not just fill their heads with a bunch of stuff and be like, 'okay you're on your own'.

In addition to teacher candidates' lack of knowledge and need to prepare for on-going learning, instructors also described resistance amongst some teacher candidates when information about the Canadian education system was in direct conflict with their prior beliefs and experiences. Four of the course instructors described moments in class when they could see teacher candidates struggle with new information that conflicted with their pre-conceptions of Canada. Lex explained that the "implication that education is a tool of colonialism was really hard for them to wrap their heads around," and said that they were "being confronted with how little they know about the context that's all around them." She attributes this process to 'cognitive dissonance':

The term that comes up in scholarship all the time [is] cognitive dissonance; so, suddenly seeing the context all around them, suddenly realizing how little they know was also really challenging for them. What does that mean for them? Now they have to contend with this choice, like how could I have not known this? And does that make me a bad person? Does that make me racist?

Not every teacher candidate was prepared to address these questions. Sandra observed that in every class there would be the “widest swath of preparation and attitudes” of any class that she would teach. In every class, she would need time to get to know teacher candidates’ knowledge, preparation, and attitudes in the course to determine how she wanted to direct class conversations. She has experienced classes with most teacher candidates open and willing to learn. She has also had the opposite experience, saying: “I have had students who were quite resistant. They did what they were required to do to get a decent grade but they never did take any of the teachings into their heart.” This resonates with the responses from some teacher candidates in the second survey response.

Laura learned that there were two essential components to teaching the course. The first was that teacher candidates “were going to come in with a lot of their own questions about why they’re taking this class and how was it relevant to them,” the second, that “they also were going to be teachers in a system.” She learned that she would have to make the course personally relevant to teacher candidates as well as prepare them to be teachers. She said: “Here they were meeting an Aboriginal professor, and I wanted some deep dialogue to occur throughout that time we had together, and that took a lot of thinking and reflecting on my part to know how to start to approach that.” Similarly, Sandra said: “I did not want them to begin the course with an attitude of resistance. I wanted the students to give the content a chance, to see the content as interesting

and potentially useful.” Instructors of the *Aboriginal Education* course observed that in every class there exists a wide range of knowledge and disposition towards course content, and as a result, they are limited in the type of depth of knowledge and reflective activities that they can implement in the courses.

Conclusion

The broad purpose of the mandatory *Aboriginal Education* course at Lakehead University is to provide teacher candidates with knowledge and strategies appropriate to integrating Indigenous content into their teaching practice. According to the pre-course survey results, 22% of teacher candidates reported feeling knowledgeable at the beginning of the course, 39% reported not feeling knowledgeable, and an equal number responded “neutral.” These results mirror course instructors’ interview responses, reporting that most, if not all, teacher candidates began the course with little knowledge of Indigenous content. Results from the post-course survey indicate that 77% of teacher candidates felt knowledgeable about Indigenous histories, cultures, and perspectives at the end of the course, and yet, course instructors described the course as limited, and, at best, an introduction to the issues and perspectives within Indigenous Education. Teacher candidates may have been noticing a huge increase in their knowledge, while instructors had a broader view of how much there is still to learn.

Recognizing that short Indigenous Education courses in teacher education programs are insufficient in developing teachers’ knowledge and capability, it is necessary that teacher candidates enter their professional practice with a willingness to continue learning. The best of teachers can unintentionally perpetuate further harm and cause conflict if their knowledge and understanding of Indigenous peoples and cultures is inadequate, or based upon myths and stereotypes (Dion, 2007; St. Denis, 2009). Successful teaching practices are generally attributed

to teachers who are open and willing to learn from their Indigenous students and colleagues (Moon & Berger, 2016). The ideal outcome of teacher preparation is teacher candidates who are open and willing to continue learning and engaging with Indigenous resources, regardless of their perceived level of knowledge (Nordhoff & Kleinfeld, 1993). Findings from the current study suggest that most teacher candidates are open to continued learning.

The findings from both teacher candidates and course instructors reinforce the call for more learning opportunities, specific to Indigenous content, in teacher education programs. Nardozi and Mashford-Pringle (2014) conclude that presentations or workshops on Indigenous content are not enough to appropriately prepare teacher candidates, recommending that teacher candidates complete a full year mandatory course. Though not a full year course, the *Aboriginal Education* course at Lakehead University offers teacher candidates a mandatory course in their teacher preparation. And yet, with a large number of teacher candidates entering the program with limited knowledge, course instructors must work with teacher candidates to build their knowledge and understanding of Indigenous peoples, cultures, histories, and perspectives. Providing teacher candidates with more learning opportunities, such as a full year course, would benefit teachers' knowledge and capacity in teacher preparation.

At Lakehead University, the mandatory *Aboriginal Education* course in the new two-year program has doubled in length to 36 hours. This is a step in the right direction. Further research on the impact of Indigenous Education and pedagogy integrated with all courses in teacher education and on longer stand-alone Indigenous Education courses, is highly recommended. The findings in this paper suggest the need for further learning opportunities for both pre-service and in-service teachers to ensure that elementary and secondary school teachers receive on-going

support to increase their ability to incorporate appropriate and relevant Indigenous content and pedagogy in their teaching practice.

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Chapter Five: Data Not Addressed in the Research Articles

Data in this study were collected from multiple perspectives and approaches that provided extensive findings on the use, and impact, of self-reflective practices in an *Aboriginal Education* course along with other effective instructional approaches and assignments. Although most of the findings that emerged from the collected data were synthesized and discussed in the three research articles, not all of the data collected in this study were able to be included in the research articles. In this section, I discuss the data and themes that were not included in the research articles and describe how they provide direction for further research and/or academic writing. The findings in this chapter come primarily from teacher candidates' written responses to the last open-ended question on the post-course survey and two responses from the pre-course and post-course Likert scale survey, and from three course instructors' responses to the last two questions in their interviews.

Teacher candidates' perspectives. The last open-ended question asked teacher candidates: *Is there anything else that you feel is important to add about learning about Aboriginal Education in a teacher education program?* Twenty-five out of 45 teacher candidates from the two sections of *Aboriginal Education* provided a response. Four of those responses either stated that they had nothing to add to the course design or that they enjoyed all aspects of the course. One teacher candidate stated that they enjoyed the course but did not enjoy connecting course content with their teaching pedagogy, and another teacher candidate stated that they believed that course content should be provided to students earlier in their education. Ten teacher candidates responded that they would like more experiences and knowledge of Indigenous cultural practices in the *Aboriginal Education* course or in teacher education and nine teacher candidates responded that they would like to learn more about teaching Indigenous students or integrating Indigenous content.

Paul Cormier, the instructor of the course, provided a variety of learning opportunities for teacher candidates to experience cultural practices and gain first-hand experience with Indigenous sharing circles, smudging protocols, and land-based learning activities with local Elders. And yet, according to ten teacher candidates, these learning activities were not enough; for example, one teacher candidate wrote: “I wish that we could have more Elder walks or go into more detail about pow-wows, healers, etc.” (TC, 29). Similarly, another teacher candidate wrote that they would have liked the course to “bring in more community Elders in lessons” (TC, 78). Other teacher candidates asked for more time learning about sharing circles, traditional land medicines, and lessons with local Indigenous community members. These responses suggest that for some teacher candidates, a single 18-hour *Aboriginal Education* course was not enough in initial teacher education, and that more time and more opportunities were needed to learn about and experience local Indigenous cultural practices, ceremonies, and traditions.

Nine teacher candidates stated that they would like further opportunities to learn about teaching Indigenous students and integrating Indigenous perspectives. One teacher candidate wrote that the *Aboriginal Education* course needs to “explain what methods are best used to teach Aboriginal Education in the classroom” and, that it needs to address: “what topics we should have an Elder demonstrate or explain, versus teaching ourselves; what topics we should avoid teaching (e.g., certain traditions); how to create a diverse, yet inclusive classroom, [and how to] include new events relating to Aboriginal history (e.g., Idle No More)” (TC, 37). Some teacher candidates wanted more learning experiences about developing appropriate lesson plans and pedagogical practices; for example, one teacher candidate wrote that they would like “more opportunities to determine how to integrate Aboriginal Education into lessons and lesson plans”

(TC, 44). Another teacher candidate wrote that they would like to learn “how to incorporate Aboriginal Education into everyday lesson plans” (TC, 79).

Also of interest was learning how to engage and teach Indigenous students. For example, one teacher candidate wrote that it is important to learn “ways to better reach out to Aboriginal youth” (TC, 67). And another teacher candidate wrote about the importance of learning about students’ cultures, writing that teacher candidates need to “understand that there are many different cultures that contribute to a classroom. Knowing students’ culture will be beneficial to the learning environment” (TC, 81). Another teacher candidate wrote that they would like to know more about “how to go about getting involved with community/school programs aimed at Indigenous students” (TC, 31).

The interest to learn more about what is described in the previous three paragraphs is reflected in the Likert scale survey results. Teacher candidates’ response to the statement: *I plan on learning more about FNMI histories, cultures, and/or perspectives during my career as an educator* (are presented in Table 5). Similar to the open-ended responses, teacher candidates indicated an interest to continue learning throughout their teaching career. Results from the pre-course survey showed that 57% agreed and 18% strongly agreed with this statement. In the post-course survey, the total number of teacher candidates who strongly agreed increased, as 54% indicated that they agreed and 28% indicated that they strongly agreed. The slight increase from 75% to 82% suggests that while many began the course with an interest in continued learning, interest in continued learning increased by the end of the course. I take this finding to be very positive.

Table 5

Teacher Candidates Responses to the Statement “I plan on learning more about FNMI histories, cultures, and/or perspectives during my career as an educator.”

Surveys	Rating Scale				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Pre-course (n=44)	0% (0)	2% (1)	23% (10)	57% (25)	18% (8)
Post-course (n=39)	0% (0)	0% (0)	18% (7)	54% (21)	28% (11)

A positive attitude was also found in teacher candidates' response to the statement: *I plan on integrating FNMI histories, cultures, and perspectives into my classroom lessons and instruction* (see Table 6). The results from the pre-course survey indicated that 61% agreed and 16% strongly agreed with this statement, for a total of 77%. The interest to integrate Indigenous content into their teaching increased by the end of the course with post-course survey result indicating that 56% agreed and 36% strongly agreed. While 92% of the class indicated a willingness to integrate Indigenous content, it is unknown why 5% indicated neutral, and 3% strongly disagreed. As in the third paper, it is possible that some teacher candidates were initially unsure whether Indigenous content fit into their future professional field.

Table 6

Teacher Candidates Responses to the Statement “I plan on integrating FNMI histories, cultures, and perspectives into my classroom lessons and instruction.”

Survey	Rating Scale				
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Pre-course (n=44)	0% (0)	0% (0)	21% (9)	61% (27)	16% (7)
Post-course (n=39)	3% (1)	0% (0)	5% (2)	56% (22)	36% (14)

Although the Likert scale survey results provide a strong indication that most of the teacher candidates began the course with an interest to learn in their career and to integrate Indigenous content in their lesson plans, the survey results are not enough to assert that a mandatory course is sufficient to prepare teacher candidates for teaching Indigenous Education—especially with studies showing that non-Indigenous teachers struggle to integrate Indigenous lessons into their teaching practice (e.g., Higgins, Madden, & Korteweg, 2015; Milne, 2017). The response to the open-ended question on the post-course survey show that at least a quarter of the class wanted further learning opportunities to experience Indigenous cultural practices, develop and integrate Indigenous content in lesson plans, and learn about, and from, local Indigenous communities. While we have seen that teacher candidates who are only briefly exposed to Indigenous Education through a seminar or workshop often want more information and training (Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013), the current study confirms that even after a dedicated course, many teacher candidates want more. They are also able to clearly articulate what they think is important in their continued learning.

The *Aboriginal Education* course at Lakehead University has become 36 hours as part of the two-year education program. This may provide instructors more time to expand on these types of learning activities, though, it is also likely that a single course on Indigenous Education in teacher education will never be enough to cover all of the theory and learning activities that are needed, especially given where many teacher candidates start. Further research on ways that educators can build-on their learning experiences in teacher education programs may increase educators' knowledge and confidence to integrate appropriate Indigenous content into their practice. The following is an overview of what three course instructors suggested could benefit teacher candidates as they learn about Indigenous Education in the teacher education program.

Course instructors' suggestions. All instructors were asked the following two questions: *Drawing from your experience teaching, what is the most important aspect of preparing teacher candidates on this topic? And, is there anything else that you feel is important to address on this topic?* Two course instructors provided further suggestions about land-based teaching and learning experiences outside of the structure of the course itself, and one instructor spoke of the possibility of Indigenous and non-Indigenous instructors team teaching.

Although land was a theme that was discussed in article two, the suggestions offered by Laura Buker and Paul Cormier explored this further by suggesting ways that teacher education programs should integrate land and community-based learning. Laura explained that she would like to see teacher candidates in the *Aboriginal Education* course learn outside of the classroom and on the land. She said:

I always lobbied for this course to have more experience on the land . . . I wanted to lobby, and continue to lobby, to build into that course that there would be money available or at least space made in terms of when to do it. Bus trips or canoe experiences!

Just getting out into some of the wonderful parks that are nearby, and have Elders teaching about the plant knowledge, or about the stories of the land. Again, getting out of the classroom and into the wonderful bush country and land and rivers that are just right there.

While Laura emphasized the integration of land-based learning, Paul Cormier discussed the feasibility of incorporating teaching placements in First Nation communities. He said:

I think it would be much better if we could bring students to live in a fly-in reserve for a month in the summer, so they actually live in the place or are given a real experience in what it's really like If we are serious about addressing those issues, you can't learn Aboriginal culture unless you experience it. You can't read it in a book and understand it, it's just not the same.

Both Paul and Laura described the importance of integrating land and Indigenous community in teacher education – components of Indigenous Education courses that are addressed by other instructors in the literature (Blimkie et al., 2014; Dion, 2007; Scully, 2012). The *Aboriginal Education* course and Lakehead University's teacher education program have not integrated these components within the program on a regular basis. Yet, thinking about ways that teacher education programs can integrate learning experiences that stretch the structure and boundaries of teacher education is important to consider in the development and delivery of Indigenous Education courses in teacher education.

In response to the final interview questions, Lex Scully discussed the idea of 'team teaching'. Lex was the only non-Indigenous instructor in this study and described a potential benefit of having Indigenous and non-Indigenous instructor co-teach the course. She said: "In these classes learning about culture and from community is a crucial part," but it "is also about

Whiteness and about colonization.” Conversations about colonization, White privilege, and their impact in education addressed by instructors from different backgrounds would offer teacher candidates the opportunity to engage in these conversations from more than one perspective. The topics of colonization and White privilege appeared briefly in the collected data; and yet, literature on Indigenous Education has described it as a crucial aspect of teacher candidates’ understanding of Indigenous Education (Cannon, 2012; Dion, 2007). While this study focused on the role of self-reflective practices as a method for shifting teacher candidates’ understanding of Indigenous Education, further research that explores Indigenous and non-Indigenous instructors, team teaching, as well as how self-reflective practices that focus on race and White privilege in connection to Indigenous Education, is highly recommended.

Chapter Six: Recommendations and Conclusion

This chapter presents an overview of the recommendations that emerged during data analysis. Recommendations about self-reflective practices in an Indigenous Education course, the integration of Indigenous Education courses in initial teacher education and professional development and future research possibilities are provided in each research article in chapter four. In this chapter, the recommendations are brought together and discussed in further detail. This chapter concludes with a summary of the current study's contribution to the literature.

Recommendations

Self-reflection in Indigenous Education courses. It is recommended that Indigenous Education courses incorporate self-reflective practices in their course design. This study supports literature on Indigenous Education in teacher preparation that found that many teacher candidates are non-Indigenous with little knowledge and understanding of Indigenous peoples, cultures, and perspectives (e.g., Blimkie, et. al, 2014; Mashford-Pringle & Nardozi, 2013). Providing a course that addresses this content is important; and yet, equally important is examining the impact of colonization and assimilation, while also identifying and breaking down stereotypes, myths, and deeply rooted prejudices (Dion, 2007; Tupper, 2011). Teacher candidates in this study described self-reflective practices as an effective method of personal self-evaluation (i.e. raising awareness of personal knowledge or bias, providing an opportunity to expand knowledge and awareness, and exploring the influences that have shaped their knowledge and awareness). Teacher candidates also described self-reflective practices as a method for establishing personal connections with course theory, and for developing a culturally inclusive pedagogy. Integrating self-reflective practices into Indigenous Education courses supports teacher candidates'

developing knowledge and understanding of Indigenous histories, cultures, and perspectives in an educational context.

It is recommended that Indigenous Education course instructors be clear and explicit in their use of self-reflective practices. One of the challenges of self-reflection in teacher education is the clarity of purpose in teacher preparation and teacher development (Ottesen, 2007; Rodgers, 2002). For example, course instructors, who taught the *Aboriginal Education* courses at Lakehead University's Thunder Bay and Orillia campuses, presented multiple ways that self-reflective practices were used in their instruction. It is recommended that clear instruction be provided for the specific purpose and use of self-reflection to help minimize confusion for teacher candidates. In the current study, only a few teacher candidates from two sections of *Aboriginal Education* indicated that they did not find self-reflection to be useful in the course, or that they found instruction towards the self-reflective practice confusing. Teacher candidates' comfort and familiarity with self-reflection will differ in each section of a course, requiring course instructors to be mindful of the type of instruction and guidance that each teacher candidate may require.

Recommendations for developing teacher candidates' knowledge of Indigenous Education. It is recommended that teacher education programs integrate a mandatory Indigenous Education course and that the course instructors consider using self-reflective practices. In this study, most teacher candidates indicated at the beginning of the *Aboriginal Education* course that they did not feel knowledgeable about Indigenous histories, cultures, and perspectives and at the conclusion of the course, they reported an increase in their knowledge of these topics. A mandatory Indigenous Education course can provide teacher candidates with some of the needed knowledge and understanding of Indigenous Education, especially for

teacher candidates who would not have selected elective Indigenous Education courses in their teacher preparation.

At the end of the 18-hour *Aboriginal Education* course in this study, approximately half of the teacher candidates in the two sections stated that they would like more opportunities to learn about Indigenous cultural practices, and/or how to appropriately integrate Indigenous perspectives into the curriculum. In the current study, some of the teacher candidates wrote that self-reflection provided them with a method of self-evaluation that included identifying a lack of knowledge in specific topics within Indigenous Education. This process of identifying gaps in their knowledge may impact their desire to continue learning in their professional career. It is recommended that teacher education programs with a mandatory Indigenous Education course provide further opportunities for teacher candidates to learn from, and with, Indigenous community members within the program. This outcome could be achieved by lengthening the mandatory course throughout the program or supplementing the teacher education program with Indigenous content taught in other courses and/or on-going workshops, seminars, and field trips that build-on Indigenous Education course content. For example, if an Indigenous Education course provided a lecture on the history and purpose of Indigenous ceremonies and traditions, such as a pow wow, a co-ordinated field trip to a local community pow wow would give teacher candidates the opportunity to have first-hand experience with the theory addressed in the class. This, in combination with self-reflective practices would encourage teacher candidates to evaluate their prior internal beliefs or prejudices about Indigenous cultural traditions and create a personal connection to course theory.

In addition to a mandatory Indigenous Education course, additional qualification courses that will expand the content offered in the mandatory course should be developed and offered to

pre-service and in-service teachers at undergraduate and graduate levels. Course instructors in this study indicated that the mandatory *Aboriginal Education* course provided an introduction to the theory and strategies appropriate to Indigenous Education and that teacher candidates required more opportunities to extend this introductory knowledge and understanding. If additional qualification courses were designed to expand on the content taught in teacher education, specifically addressing ways that educators can integrate Indigenous histories, cultures, and perspectives into their curriculum development and teaching pedagogy, it may help to address the needs of educators who continue to feel uncomfortable teaching Indigenous content in their professional practice (Higgins, Madden, & Korteweg, 2015; Milne, 2017).

It is also recommended that school boards work in collaboration with teacher education programs to develop and offer educators learning resources and on-going professional development that respond to educators' developing knowledge, skills, and capabilities. Additional qualification courses on Indigenous Education and professional development seminars and workshops may be available to educators in most school boards; however, a co-ordinated program that brings initial teacher education programs together with professional development programs may ensure that teachers strengthen their confidence and capability of integrating responsive and appropriate Indigenous perspectives and content.

Recommendations for further research. In this study, self-reflective practices were examined in a mandatory *Aboriginal Education* course in a teacher education program. While teacher candidates in this study described what they believed to be the purpose and use of self-reflection in the course, it is unknown whether, and how, these self-reflective practices taught in initial teacher education programs will transfer into teacher candidates' professional practice. It is recommended that future research on the use, and impact, of self-reflection and self-reflective

practices focus on teacher candidates' transition into their professional practices. This focus will provide a more robust understanding of how teachers retain and utilize self-reflective practices throughout their careers, and how reflective practices may impact their knowledge and understanding of teaching Indigenous students and integrating Indigenous content into their curriculum. It would also provide insight on how self-reflective instruction should be taught in teacher education to maximize its impact in professional practice.

In this study, course instructors shared a variety of examples and ideas about what they felt were effective strategies and assignments in the *Aboriginal Education* course. It is recommended that research on the learning methods and activities of Indigenous Education courses expand to include initial teacher education programs across Canada. Expanding this research to include Indigenous Education courses in a variety of teacher education programs will provide an expansive view of 'what' and 'how' teacher candidates are being prepared to teach Indigenous students and integrate Indigenous content. A comprehensive view of Indigenous Education courses in initial teacher education may assist Indigenous Education instructors in developing their own course outlines with the methods and learning activities that have had the most impact on teacher candidates. It also may help instructors and professors working in teacher education programs to identify gaps in their programs.

The Likert scale survey results in this study were administered to teacher candidates in two sections of *Aboriginal Education* at the beginning and end of the course during one semester. It is recommended that further surveys on teacher candidates' knowledge of, interest in, and attitudes toward Indigenous Education be administered to teacher candidates in each mandatory course on a yearly basis. These surveys will help inform the content and activities included in Indigenous Education courses and provide teacher education programs with insight

into the number and kind of supporting resources teacher candidates need and want. The previous knowledge and understanding of incoming teacher candidates may shift over the years, and it is important that initial teacher education courses be able to adjust their course objectives every year to meet the learning needs of their students.

Conclusion

It is evident that learning about White privilege, racism, oppression, and the relationships between non-Indigenous and Indigenous histories, cultures, and perspectives in teacher education is complex and at times challenging (Aveling, 2006; Cannon, 2012; Dion, 2007; Tupper, 2011). Kovach (2013) described the complexity of learning Indigenous-based content and pedagogy for non-Indigenous teachers. She wrote that the “relation of non-Indigenous educators to Indigenous pedagogy is complicated, even among those basically sympathetic and seeking to act in solidarity with Indigenous colleagues. This engagement may require painful and even intellectually difficult to grasp introspection and reflexivity” (p. 118).

The current study contributes to this complex, though important, task of encouraging understanding and awareness of Indigenous histories, cultures, and perspectives in teacher education. Literature on culturally responsive teaching has called for teacher candidates and in-service teachers to look inward to address internal biases and prejudices in cross-cultural teaching contexts (Gay, 2002; Hammond, 2015; Villegas & Lucas, 2002). This study supports this process as it specifically examined the role and impact of self-reflective practices and found them to be effective methods for teacher candidates to deepen their self-awareness, encouraging their understanding of internal bias, racism, and prejudices in society and in education (Cannon, 2012; Solomon et al., 2005; Tilley & Taylor, 2012). The aim of this study was to contribute to

research that seeks to improve education for Indigenous students and for all students who are being educated with the absence of accurate understanding of Indigenous/non-Indigenous relations in Canada.

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Appendix A: Photograph 1: To see what was once unseen



It was late spring when I was nearly finished my data analysis of teacher candidates' response to the purpose and impact of self-reflection. While hiking through a nature trail with my family I was struck by this tree that reached far higher than the other trees. Running through my mind was literature on self-reflection as a method for internal examination that uncovers beliefs, attitudes, and assumptions, and teacher candidates' statements of their realization of lingering racism, prejudices, and stereotypes. I thought to myself that this tree, at one point, would have been the same height as the other trees in the forest, only able to see what surrounded it—trees

just like itself. But now, it has grown taller than the other trees and can see in all directions what it was once unable to see, nor did it even know existed. I created this photo as I imagined it to be like a teacher candidate's growing awareness of Indigenous Education, and the impact of self-reflection would be the ability to see what was once unseen.

Appendix B: Photograph 2: The root of knowledge



My husband often takes photos of trees from different angles and perspectives. He carries his camera with him during our many hikes through the walking trails that surround Thunder Bay, Ontario. This photograph was particularly striking to me as I thought about what the course instructors in this study shared with me about teacher candidates' knowledge and response to the *Aboriginal Education* course. Their personal experiences, school experiences, the places they have lived, the people they have met, have all played a part in their overall awareness, attitude, and understanding of Indigenous Education. This photograph of a tree emphasized the trunk of the tree rather than its branches, and it caused me to think about what the focus of instructional strategies should be, and as a result, I created this statement of art in connection to the photograph: Teacher candidates arrive in teacher education programs with their own knowledge of, interest in, and attitudes toward Indigenous Education in teacher education. These variables have grown from the personal experiences and socio-political positions that make up one's own

core sense of self and knowing. In order to reach the core of one's sense of knowing, instructional strategies and learning activities in teacher education must work through the branches and engage within the core from which internal beliefs, values, and attitudes originate.

Appendix C: Teacher Candidates' description and consent form.

The role of self-reflective practices in an Aboriginal Education course in teacher education

Description and Consent Form – Observation Data

Dear Potential Participant,

My name is Melissa Oskineegish and I am a PhD candidate in the Joint PhD in Educational Studies at Lakehead University. I am completing dissertation research that explores how teacher candidates can shift their understanding of teaching Indigenous students when engaged in self-reflective practices that increase awareness of their own beliefs, attitudes, and assumptions about Indigenous peoples, cultures, histories, and perspectives. Because you are a teacher candidate in the *Aboriginal Education* (ED 4416) course, I am inviting you to participate in this research by completing a survey at the beginning and a survey at the end of the course.

I also invite you to share your views and experiences with self-reflective practices through informal conversations with me throughout the course.

The findings from this study will help develop instructional strategies, courses, and programs that prepare teacher candidates to teach Indigenous students.

Questionnaire: The questionnaires will require approximately 5 to 10 minutes each to complete. There is no compensation for responding nor are there any known risks. The responses from the questionnaires will not be shared with the course instructor. In order to ensure that all information will remain confidential, please do not include your name. If you choose to participate in this study, please answer all questions as honestly as possible. Participation is strictly voluntary and you may refuse to participate at any time. Answering and returning the questionnaire will be taken as consent to participate.

Classroom Observation: I will be a participant as observer of the *Aboriginal Education* classes throughout the Fall term to make notes on the self-reflective strategies and assignments that are used in each class. Observational notes will be broad and general of classroom interactions and will not include your name or any other identifiable information. Participation is strictly voluntary and you may refuse to participate at any time. Please check the box below if you agree that broad observations of classroom interactions can be used as data in this study.

Voluntary Nature of the Study: Your participation in any part of this study is strictly voluntary. Your decision whether or not to participate will not affect your current or future relations in the class or the teacher education program. If you initially decide to participate, you are free to withdraw at anytime without penalty.

Risks & Benefits: There is no known risk associated with this study. Near the end of the course I will provide pizza for the entire class as a token of gratitude for having me in the class. All will be welcome to eat whether or not they have taken part in any parts of the research.

Confidentiality & Data Storage: Your name and other identifiable information will remain confidential. All questionnaire data will be safely stored at Lakehead University in Dr. Paul Berger's office for a period of five years.

Research Results: Research results will be shared in a doctoral dissertation and may be shared in reports, academic journal articles, academic presentations, artistic interpretations, and workshops for teachers.

Thank you for considering assisting me in my educational endeavors. If you require additional information or have questions, I can be contacted at the number below.

Researcher Information: The research is being conducted by:

Melissa Oskineegish, PhD Candidate, Faculty of Education
 Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1
 Email: mmoberly@lakeheadu.ca tel: 807 285 3947

Research Supervisor:

Paul Berger Chair of Graduate Studies & Research Education
 Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1
 Email: paul.berger@lakeheadu.ca tel: 807 343 8708

The research has been approved by:

Lakehead Research Ethics Board: (research@lakeheadu.ca)

If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

I agree that Melissa's classroom observations of interactions involving me can be included as data in dissertation research.

Signature of the participant

Date

Appendix D: Teacher Candidate description and consent form for course assignments (reflection papers)

The role of self-reflective practices in an Aboriginal Education course in teacher education

Description and Consent Form – Course Assignments

Dear Potential Participant,

My name is Melissa Oskineegish and I am a PhD candidate in the Joint PhD in Educational Studies at Lakehead University. I am completing dissertation research that explores how teacher candidates can shift their understanding of teaching Indigenous students when engaged in self-reflective practices that increase awareness of their own beliefs, attitudes, and assumptions about Indigenous peoples, cultures, histories, and perspectives.

Reflection Paper: In the *Aboriginal Education* (ED 4416) course you recently completed a reflection paper that was marked and returned to you. I am inviting you to share your reflection paper with me in order that I can further explore the impact of self-reflective practices in the *Aboriginal Education* course. Your reflection paper can be given to me without your name attached. If your name appears on the reflection paper, your name and identifiable information will remain confidential. Participation is strictly voluntary and you may refuse to participate at any time. Providing a copy of your reflection paper by email or in-person will be taken as consent to include your reflective paper in my dissertation research.

The findings from this study will help develop instructional strategies, courses, and programs that prepare teacher candidates to teach Indigenous students.

Risks & Benefits: There is no known risk associated with participation in this study and there is no benefit or compensation for sharing your assignments.

Confidentiality & Data Storage: Your name and other identifiable information will remain confidential. All reflection paper data will be safely stored at Lakehead University in Dr. Paul Berger's office for a period of five years.

Research Results: Research results will be shared in a doctoral dissertation and may be shared in reports, academic journal articles, academic presentations, artistic interpretations, and workshops for teachers.

Thank you for considering assisting me in my educational endeavors. If you require additional information or have questions, I can be contacted at the number below.

Researcher Information: The research is being conducted by:

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Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1

Email: paul.berger@lakeheadu.ca tel: 807 343 8708

The research has been approved by:

Lakehead Research Ethics Board: (research@lakeheadu.ca)

If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

Appendix E: Email invitation for teacher candidates interview

Dear (Potential participant name),

My name is Melissa Oskineegish and I am a PhD candidate in the Joint PhD in educational studies at Lakehead University.

I would like to invite you to take part in a focus group interview on **one** of the following dates: **Friday January 27, 12pm**, or **Monday January 30, 1pm**, or **Thursday February 2, 10:30am** in **room BL 2034** to share your experiences and perspectives of the impact of learning in *EDUC 4416 Aboriginal Education* on your teaching placement. The focus group interview should last approximately one hour with lunch provided.

If any of the dates above do not work for your schedule or you would prefer to participate one on one please feel free to let me know.

The focus group interview builds on the questionnaires that were completed during the first and last week of the *Aboriginal Education* (ED 4416) course. Participation in the focus group interview is open to everyone in the class regardless of completion of the questionnaire. The focus group interview will provide an opportunity for you to share what aspects of the *Aboriginal Education* (ED 4416) course helped you in your teaching placement.

I believe that you have experience and knowledge that would be of great benefit on this topic and I look forward to hearing from you.

I have attached a description and consent form along with questions that will guide the focus group interview. Participation is completely voluntary. If, after reviewing the description and consent form, you are interested in participating or have any questions, please let me know. I can contact you by phone or email to answer any questions you might have before deciding on whether to take part.

If you have any questions please feel free to contact me at: mmoberly@lakeheadu.ca or (807) 285 3947.

This research has been approved by the Lakehead University Research Ethics Board (tel: 807 343 8283; research@lakeheadu.ca). My supervisor is Dr. Paul Berger, Chair of Graduate Studies & Research in Education (tel: 807 343 8708; paul.berger@lakeheadu.ca).

Thank you for considering this request,

Melissa Oskineegish

Appendix F: Teacher candidate interview description and consent form

The role of self-reflective practices in an Aboriginal Education course in teacher education

Description and Consent Form

Dear Potential Participant,

My dissertation research looks at how teacher candidates can develop their understanding of teaching Indigenous students when engaged in self-reflective practices that increase awareness of their own beliefs, attitudes, and assumptions about Indigenous people. I hope to address this by exploring the effect of self-reflective practices on teacher candidates' understanding of teaching Indigenous students in Lakehead University's *ED 4416 Aboriginal Education* course. I would like to include you in a focus group for this research as I believe that your knowledge and experience as a teacher candidate who completed *ED 4416 Aboriginal Education* at Lakehead University can be of great benefit to my work.

Description of the Research: The purpose of this study is to examine whether teacher candidates' change their understanding of teaching Indigenous students when engaged in self-reflective practices that can increase awareness of their own beliefs, attitudes, and assumptions about Indigenous and non-Indigenous relations. The findings from this study will help to develop instructional strategies, courses, and programs for teacher candidates to develop appropriate pedagogical practices for Indigenous students.

Focus Group Interviews: The focus group will be conducted on (Date) for approximately one hour. Participation is voluntary and you are under no obligation to participate. If you chose to participate in the focus group you may refuse to answer any question, and you may leave the group at any time without penalty.

I have attached the questions for your consideration. The questions will be used as a guide but will not be followed rigorously as I encourage you to share what you feel is important on this topic. The focus group will be audio-recorded.

Risks & Benefits: No known risk is associated with participation in the research. Lunch will be provided as a small token of thanks during the focus group interview discussion.

Confidentiality & Data Storage: Your name and other identifiable information will remain confidential. All interview data will be safely stored at Lakehead University for a period of five years. Because others will be present at the focus group, I cannot guarantee confidentiality to the same degree as in an individual interview. All participants will be required to sign a confidentiality agreement.

Research Results: Research results will be shared in a doctoral dissertation and may be shared in reports, academic journal articles, academic presentations, artistic interpretations, and workshops for teachers.

Researcher Information: The research is being conducted by:

Melissa Oskineegish, PhD Candidate, Faculty of Education

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Email: paul.berger@lakeheadu.ca tel: 807 343 8708

The research has been approved by:

Lakehead Research Ethics Board: (research@lakeheadu.ca)

If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

I, _____, have been fully informed of the objective of the research being conducted. I understand these objectives and consent to participating in the Focus Group interview for the project. I understand that I do not have to answer any question and that I may withdraw from the focus group interview at any time without penalty.

Signature of the participant

Date

I agree to treat what others say in the focus group confidentially and will not disclose what I hear to others

Appendix G: Email message to Aboriginal Education instructors

Subject: Invitation to participate in a study on the Aboriginal Education 4416 course

Dear (Potential Participant),

My name is Melissa Oskineegish. I am a PhD candidate in the Joint PhD in Educational Studies at Lakehead University. I am conducting dissertation research on self-reflective practices in the *Aboriginal Education* (ED 4416) course at Lakehead University's teacher education program. I have your name as someone who has taught the course and I would like to interview you for this project as I believe that you have experience and knowledge that would be of great benefit on this topic.

I have attached a description and consent form along with questions that would guide the interview for your consideration. Participation is completely voluntary. If, after reviewing the description and consent form, you are interested in participating or have any questions, please let me know. I can contact you by phone or email to answer any questions you might have before deciding on whether to take part.

We could then arrange to complete the interview at a mutually determined date and time, either in person, by telephone, or Skype. If you have any questions please feel free to contact me at: mmoberly@lakeheadu.ca or (807) 285 3947.

This research has been approved by the Lakehead University Research Ethics Board. My supervisor is Dr. Paul Berger, Chair of Graduate Studies & Research in Education (Lakehead University), and my committee members are Dr. Pauline Sameshima, Canada Research Chair in Arts Integrated Studies (Lakehead University), and Dr. Dolana Mogadime, Associate Professor, Faculty of Education (Brock University).

Thank you for considering this request,

Melissa Oskineegish

Appendix H: Instructors interview description and consent form

**The role of self-reflective practices in an Aboriginal Education course
in teacher education**

Description and Consent Form

Dear Potential Participant,

My dissertation research looks at how teacher candidates can shift their understanding of teaching Indigenous students when engaged in self-reflective practices that increase awareness of their own beliefs, attitudes, and assumptions about Indigenous people. I hope to address this question by exploring the effect of self-reflective practices on teacher candidates' understanding of teaching Indigenous students in Lakehead University's *Aboriginal Education* (ED 4416) course. I would like to interview you for this research study, as I believe that your knowledge and experience as an instructor of *Aboriginal Education* (ED 4416) at Lakehead University would be very valuable to my work.

Description of the research: The purpose of this study is to examine whether teacher candidates can change their understanding of teaching Indigenous students when engaged in self-reflective practices that can increase awareness of their own beliefs, attitudes, and assumptions about Indigenous cultures, histories, and perspectives. The findings from this study will help to develop instructional strategies, courses, and programs for teacher candidates to develop appropriate pedagogical practices for Indigenous students.

Interviews: I will conduct interviews in person or by phone, for approximately one hour or when participants feel they are finished. Participation is voluntary and you are under no obligation to be interviewed. If you chose to be interviewed you may refuse to answer any question, and you may stop at any time without penalty.

I have attached the questions for your consideration. The questions will be used as a guide but will not be followed rigorously as I encourage you to share what you feel is important on this topic. The guiding questions will ask what you think are important instructional strategies in the *Aboriginal Education* (ED 4416) course, some specific questions about self-reflective practices, as well as ask you to share your experience instructing the course. If you agree, I would like to audio-record the interview.

You will be invited to review the transcript of the interview to check for accuracy in representation and/or to make additions, deletions, or comments.

Risks & Benefits: No known risk is associated with participation in the research. A small token of thanks will be given after the interview.

Confidentiality & Data Storage: Your name and other identifiable information will remain confidential, unless you prefer to have your name used. All interview data will be safely stored in Dr. Paul Berger's office at Lakehead University for five years.

Research Results: Research results will be shared in a doctoral dissertation and may be shared in reports, academic journal articles, academic presentations, and workshops for teachers.

Researcher Information: The research is being conducted by:

Melissa Oskineegish, PhD Candidate, Faculty of Education
Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1
Email: mmoberly@lakeheadu.ca tel: 807 285 3947

Research Supervisor:

Paul Berger Chair of Graduate Studies & Research Education
Lakehead University, 955 Oliver Road, Thunder Bay, Ontario, P7B 5E1
Email: paul.berger@lakeheadu.ca tel: 807 343 8708

The research has been approved by:

Lakehead Research Ethics Board: (tel: 807 766 7289; research@lakeheadu.ca)

I, _____, have been fully informed of the objective of the research being conducted. I understand these objectives and consent to being interviewed for the project. I understand that I can choose whether or not my name will be used. I understand that I do not have to answer any question and that I may withdraw from the study at any time without penalty.

I would like to remain anonymous
in presentations and writing about
this research

or I would like my name used in presentations
and writing about this research

I agree to have the interview audio-recorded

Signature of the participant

Date

Please add your email address if you would like to receive a summary or a copy of the dissertation when completed.

Appendix I: *Aboriginal Education* (ED 4416) Likert scale pre-course survey.

Aboriginal Education (ED 4416) teacher candidate questionnaire

Please indicate your response by placing a \surd or an X in the box that best represents your opinion on the following statements.

1. I am knowledgeable about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. All teacher candidates need to learn First Nation, Métis, and Inuit histories, cultures, and/or perspectives in teacher education programs.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. I am interested in learning more about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. I have not had many opportunities to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives in school.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Learning about First Nation, Métis, and Inuit histories, cultures, and/or perspectives is an important aspect of my preparation as a teacher.

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. I plan on integrating First Nation, Métis, and Inuit histories, cultures, and/or perspectives into my classroom lessons and instruction.

Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Only teacher candidates who are interested in First Nation, Métis, and Inuit histories, cultures, and/or perspectives should be required to take *Aboriginal Education* courses.

Strongly Disagree Disagree Neutral Agree Strongly Agree

8. I plan on learning more about First Nation, Métis, and Inuit histories, cultures, and/or perspectives during my career as an educator.

Strongly Disagree Disagree Neutral Agree Strongly Agree

9. I have had opportunities to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives outside of school.

Strongly Disagree Disagree Neutral Agree Strongly Agree

10. I would like further opportunities in the teacher education program to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

11. A teachers' knowledge and awareness about First Nation, Métis, and Inuit histories, cultures, and/or perspectives is necessary for Indigenous student success.

Strongly Disagree

Disagree

Neutral

Agree

Strongly Agree

Thank you for your participation, please hand in questionnaire when completed.

Appendix J: Likert scale post-course survey with open-ended questions

Aboriginal Education (ED 4416) teacher candidate questionnaire (2)

Please indicate your response by placing a \surd or x in the box that best represents your opinion on the following statements.

1. I am knowledgeable about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. All teacher candidates need to learn First Nation, Métis, and Inuit histories, cultures, and/or perspectives in teacher education programs.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. I am interested in learning more about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. I have not had many opportunities to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives in school.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Learning about First Nation, Métis, and Inuit histories, cultures, and/or perspectives is an important aspect of my preparation as a teacher.

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. I plan on integrating First Nation, Métis, and Inuit histories, cultures, and/or perspectives into my classroom lessons and instruction.

Strongly Disagree Disagree Neutral Agree Strongly Agree

7. Only teacher candidates who are interested in First Nation, Métis, and Inuit histories, cultures, and/or perspectives should be required to take *Aboriginal Education* courses.

Strongly Disagree Disagree Neutral Agree Strongly Agree

8. I plan on learning more about First Nation, Métis, and Inuit histories, cultures, and/or perspectives during my career as an educator.

Strongly Disagree Disagree Neutral Agree Strongly Agree

9. I have had opportunities to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives outside of school.

Strongly Disagree Disagree Neutral Agree Strongly Agree

10. I would like further opportunities in the teacher education program to learn about First Nation, Métis, and Inuit histories, cultures, and/or perspectives.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. A teachers' knowledge and awareness about First Nation, Métis, and Inuit histories, cultures, and/or perspectives is necessary for Indigenous student success.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please answer the following questions:

12. Did you find that the reflection papers supported your learning in this class? Why or Why not?

13. 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?

Appendix K: Teacher candidate's interview questions

1. In your teaching placement, did you teach or work with First Nation, Métis, or Inuit students?
 - a. How did you identify First Nation, Métis, or Inuit students?
2. In your teaching placement, did you find that your teacher advisor provided mentorship or guidance on how to provide instructional strategies or lessons that were responsive to particular students in your class?
 - a. If yes, can you share the guidance or advice that assisted you in your teaching?
 - b. If no, is there anything you wish was shared with you in your teaching placement?
3. Did you find the knowledge, resources, or teaching strategies from *Aboriginal Education* (ED 4416) to be helpful in your teaching placement?
 - a. If yes, can you describe what helped you most?
 - b. If no, what would have been helpful to learn prior to your teaching placement?
 - c. Did you find the (self-reflective practices) helpful in your teaching placement?
4. Reflecting on your teaching placement, was there anything that you wish you had learned about in the *Aboriginal Education* (ED 4416) course that would have helped you in your teaching placement?
5. Thinking about your future career in education, what knowledge, resources, or teaching strategies do you hope to have access to, to help you further learn about, and connect with, First Nation, Métis, or Inuit students?
6. Do you believe that the *Aboriginal Education* (ED 4416) course is an important aspect of teacher preparation?
7. Did your view of the mandatory course, *Aboriginal Education* (ED 4416) change after completing your first placement?
8. If you could provide advice to future teacher candidates in the *Aboriginal Education* (ED 4416) course about knowledge, resources, or teaching strategies that are the most helpful to their teaching placement, what would it be?
9. Is there anything that you would like to share that has not been covered in this discussion that is important to this topic?

Appendix L: Course instructors interview questions

Background information:

Name: (can provide name or be anonymous)

Do you identify as an Indigenous person? _____

1. What was your position at Lakehead University while instructing *Aboriginal Education* (ED 4416) at Lakehead University? (ie. contract lecturer, grad student, faculty)
2. When did you teach *Aboriginal Education* (ED 4416)?
3. How many *Aboriginal Education* (ED 4416) classes have you instructed?

Perception of teacher candidates' knowledge and awareness of Indigenous histories, cultures, and perspectives completing *Aboriginal Education* (ED 4416) course:

4. As an instructor, did you find most teacher candidates began the course with accurate knowledge or a strong awareness of First Nation, Métis, or Inuit histories, cultures, and/or perspectives?
5. As an instructor of, did you find most teacher candidates began the course with knowledge and awareness of colonization, residential schools, or assimilative practices in the Canadian education system?
6. As an instructor of, did you find that most teacher candidates' knowledge and awareness of First Nation, Métis, and Inuit histories, cultures, and/or perspectives increased by the end of the course? If so, what were the most important factors in encouraging growth? If not, what do you think were the main barriers?
7. How did teacher candidates' knowledge and awareness of Indigenous histories, cultures, and perspectives impact your course development and instructional strategy?

Self-reflective practices and other instructional strategies in the *Aboriginal Education* (ED 4416) course:

8. As an instructor did you include reflective assignments or strategies in the classes?
 - If yes,
 - a. What did you include?
 - b. What impact did self-reflection provide teacher candidates in the course?
9. What specific strategies and/or assignments do you believe had the greatest impact on teacher candidates' understanding and attitudes towards Indigenous education?

10. Drawing from your experience teaching, what is the most important aspect of preparing teacher candidates on this topic?
11. Is there anything else that you feel is important to address on this topic?

Appendix M: Reflection journal chart (ED 4416 FA)

ED 4416 FA: One year program (Nine weeks; 23 students registered).

Date	Examples of reflective practices and self-reflection prompts	Anecdotal comments
September 12, 2016	<p>Examples of reflective practices: Lecture on perspectivism – provides students with rationale, purpose, examples in education</p> <p>Discusses first assignment (reflection paper)</p> <p>Self-reflection prompts: Instructor asks students:</p> <ol style="list-style-type: none"> 1) What is your personal perspective? 2) How do I ensure cultural competence in my teaching practices? (ie. methods, content) 3) How does your personal view of Aboriginal peoples influence your assessment of teaching materials and methods? 4) How does your personal experiences with Aboriginal peoples influence the way you teach Aboriginal content? 	<p>-Student introduction – quite a few students commented that they were from outside of Thunder Bay.</p> <p>-Approximately a quarter from southern Ontario.</p> <p>-No one stated that they were Indigenous in their introduction</p>
September 19, 2016	<p>Self-reflection prompt: After watching video on specific laws Canadian government enforced on Aboriginal people, instructor asked students to make note of anything that they did not know or surprised them. And, if comfortable to share in class discussion.</p>	Lecture style class – covered a lot of information about Indigenous people in Canada.
September 26, 2016	n/a	<p>Outdoor/Land-based class</p> <p>-Informal conversations with 4 students – asked about my experience teaching in remote FN community. – 2 seemed very keen to learn more.</p>
October 3, 2016	<p>Example of reflective practice: Non-traditional sharing circle with whole class</p> <p>Self-reflection prompts: Instructor asked to students to share their thoughts on an assigned reading in the class or about class so far. (Over half-of the students shared their perspectives towards</p>	I noticed during the sharing circles, that though students could identify positive and negative influences on their outlook of cultural differences, many state that they are an open person and accepting of everyone. This made me think: Does thinking that you are an open person help to tackle the deeply ingrained stereotypes and prejudices? Is this not an obstacle?

	Aboriginal people and stories of how those perspectives were formed)	How do we acknowledge and question the deeper layers of bias, racism, and prejudices that are ingrained in our society? Can a nine-week course achieve this type of internal work? What more is needed?
October 17, 2016	<i>Self-reflective prompt:</i> Instructor asked students to think about how the school system perpetuates the norms of our society (ie. Where the teacher stands in the classroom; the time of the school)	The self-reflective prompt resonates with me, made me think about my own position and cultural norms as a teacher, or when I provide seminars for teacher candidates about teaching in FN communities.
October 24, 2016	n/a	Class activity: Students commented that if in position of Aboriginal Education they would first find resources and people to learn from. – Open and willing to learn in this position!
October 31, 2016	Examples of reflective practices: Students completed an Aboriginal Resource assignment – asking students to find a resource to integrate Aboriginal content into their intended teaching area (ie. School (location), grade, subject), and to explain why it is appropriate resource.	I found this activity can be used as reflective practice when questions of how is resource appropriate? How may it be inappropriate? Etc.. are asked.
November 7, 2016	<i>Example of reflective practice:</i> Video with First Nation women sharing their personal stories – with in-class discussion Non-traditional sharing circle with whole class.	Informal conversations with 5 students – themes: assignment marks; placement; overload of courses and assignments.

Appendix L: Reflection journal chart (ED 4416 FB)

ED 4416 FB: Concurrent education program (12 weeks; 22 students registered)

Date	Examples of reflective practices and Self-reflection prompts	Anecdotal comments
September 7, 2016	n/a	Some students with knowledge of issues in First Nations communities are from rural northern communities outside of Thunder Bay. Prior knowledge seems to provide more comfort speaking in-class and making course material connections with personal experience.
September 14, 2016	<p>Examples of reflective practices: Lecture on perspectivism – provides students with rationale, purpose, examples in education</p> <p>Discusses first assignment (reflection paper)</p> <p>Self-reflection prompts: Instructor asks students:</p> <ol style="list-style-type: none"> 1) What is your personal perspective? 2) How do I ensure cultural competence in my teaching practices? (ie. methods, content) 3) How does your personal view of Aboriginal peoples influence your assessment of teaching materials and methods? <p>How does your personal experiences with Aboriginal peoples influence the way you teach Aboriginal content?</p>	Perspectivism provides groundwork for self-reflection in class. Instructor's stories, and questions prompt students to reflect on personal views of Aboriginal people, culture, and history.
September 21, 2016	<p>Self-reflection prompt: Instructor provided rationale, purpose, and examples for the first assignment (reflection paper)</p>	A few questions asked during class.
September 28, 2016	n/a	I was absent due to funeral. I was told students went on medicine walk on LU campus with Indigenous Elder.
October 5, 2016	<p>Self-reflective prompt: Instructor asked class: Can a person view anything without bias?</p>	Class discussion on bias. Questioning of categorizing Aboriginal Wisdom vs. Western scientific knowledge – a few students asked are these categories promoting stereotypes? Instructor thanked students for discussion – promoting safe space to question.
October 19,	n/a	Outdoor/Land-based class:

2016		I tried to make a mental note of the number of students who attended as I was surprised by the lower number. Some of the students and I informally discussed knowledge about sweat lodge to provide further knowledge to each other as we walked through the sweat lodge.
October 26, 2016	Example of reflective practice: Non-Traditional sharing circle	Instructor asked students to share their thoughts on an assigned reading or class. (Some discussion of personal connection to article or reflection paper)
November 2, 2016	n/a	In-class activity: pretend to be in Ab Ed position – what would u do? All groups identified the importance of finding people and resources to learn from. All groups identified that they must come in and learn – they are not the experts.
November 9, 2016	Example of reflective practice: Video of Indigenous women sharing their personal stories. – emphasized listening to multiple perspectives	Instructor asked to discuss what they learned – lead to students identifying how teachers become barriers to education based on their attitude towards the students.
November 16, 2016	Example of reflective practice: Identify Aboriginal resource and share with small groups	This activity can be a reflective practice for some if they question what makes a resource appropriate or inappropriate.
November 23, 2016	Example of reflective practice: Non-traditional sharing circle	Students thanked me for food. One student informally shared why they dropped out of education program but stayed in the course. They thought course was most important to learn.
November 28, 2016	Example of reflective practice: Kairos Blanket exercise. Students asked many questions as they felt personally connected to history of colonization.	The hands-on activity led students to ask many questions –connecting colonization to issues they’ve heard about in news.

Appendix O: Likert scale pre-course survey results of two *Aboriginal Education* courses

Table 7.

Teacher candidates' (n=44) response to Likert scale pre-course survey statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Blank
1. I am knowledgeable about FNMI histories, cultures, and/or perspectives [HCP].	9% (4)	30% (13)	39% (17)	20% (9)	2% (1)	0% (0)
2. All teacher candidates need to learn FNMI HCP in teacher education programs.	0% (0)	0% (0)	18% (8)	46% (20)	36% (16)	0% (0)
3. I am interested in learning more about FNMI HCP.	0% (0)	0% (0)	18% (8)	50% (22)	32% (14)	0% (0)
4. I have <u>not</u> had many opportunities to learn about FNMI HCP in school.	2% (1)	27% (12)	23% (10)	36% (16)	12% (5)	0% (0)
5. Learning about FNMI HCP is an important aspect of my preparation as a teacher.	0% (0)	2% (1)	18% (8)	46% (20)	34% (15)	0% (0)
6. I plan on integrating FNMI HCP into my classroom lessons and instruction.	0% (0)	0% (0)	21% (9)	61% (27)	16% (7)	2% (1)
7. <u>Only</u> teacher candidates who are interested in FNMI HCP should be required to take	25% (11)	48% (21)	23% (10)	2% (1)	2% (1)	0% (0)

*Aboriginal
Education courses.*

8. I plan on learning more about FNMI HCP during my career as an educator.

0%	2%	23%	57%	18%	0%
(0)	(1)	(10)	(25)	(8)	(0)

9. I have had opportunities to learn about FNMI HCP outside of school.

5%	30%	25%	34%	6%	0%
(2)	(13)	(11)	(15)	(3)	(0)

10. I would like further opportunities in the teacher education program to learn about FNMI HCP.

0%	2%	41%	46%	6%	5%
(0)	(1)	(18)	(20)	(3)	(2)

11. A teacher's knowledge and awareness about FNMI HCP is necessary for Indigenous student success.

0%	2%	5%	52%	36%	5%
(0)	(1)	(2)	(23)	(16)	(2)

Appendix P: Likert scale post-course survey results of the *Aboriginal Education* course

Table 8.

Teacher candidates' (n=39) response to Likert scale post-course survey statements

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Blank
1. I am knowledgeable about FNMI histories, cultures, and/or perspectives [HCP].	0% (0)	0% (0)	15% (6)	77% (30)	8% (3)	0% (0)
2. All teacher candidates need to learn FNMI HCP in teacher education programs.	0% (0)	0% (0)	10% (4)	44% (17)	46% (18)	0% (0)
3. I am interested in learning more about FNMI HCP.	0% (0)	0% (0)	18% (7)	46% (18)	36% (14)	0% (0)
4. I have <u>not</u> had many opportunities to learn about FNMI HCP in school.	10% (4)	18% (7)	26% (10)	33% (13)	13% (5)	0% (0)
5. Learning about FNMI HCP is an important aspect of my preparation as a teacher.	3% (1)	0% (0)	10% (4)	56% (22)	31% (12)	0% (0)
6. I plan on integrating FNMI HCP into my classroom lessons and instruction.	3% (1)	0% (0)	5% (2)	56% (22)	36% (14)	0% (0)
7. <u>Only</u> teacher candidates who are interested in FNMI HCP should be required to take	33% (13)	41% (16)	15% (6)	11% (4)	0% (0)	0% (0)

*Aboriginal
Education courses.*

8. I plan on learning more about FNMI HCP during my career as an educator.

0%	0%	18%	54%	28%	0%
(0)	(0)	(7)	(21)	(11)	(0)

9. I have had opportunities to learn about FNMI HCP outside of school.

3%	26%	28%	38%	5%	0%
(1)	(10)	(11)	(15)	(2)	(0)

10. I would like further opportunities in the teacher education program to learn about FNMI HCP.

0%	5%	21%	56%	18%	0%
(0)	(2)	(8)	(22)	(7)	(0)

11. A teacher's knowledge and awareness about FNMI HCP is necessary for Indigenous student success.

0%	0%	5%	54%	41%	0%
(0)	(0)	(2)	(21)	(16)	(0)