

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Attitudes
Towards the Integration of Indigenous Education

by

Kaitlind Marie Ethel Peters

A thesis submitted to the Faculty of Education
In conformity with the requirements for
the degree of Masters of Education

Queen's University
Kingston, Ontario, Canada
(July, 2018)

Copyright ©Kaitlind Marie Ethel Peters, 2018

Abstract

Teacher apprehension towards integrating Indigenous perspectives into the general classroom curriculum is an issue that should become a priority in Ontario Faculties of Education. Teachers' attitudes and perceptions towards Indigenous education can impact instructional judgments and pedagogical decisions, which influence the learning opportunities afforded to Indigenous and non-Indigenous students (Riley & Ungerleider, 2012; Pajares, 1992; Cantu, 2001). The Truth and Reconciliation Commission's (TRC) *Calls to Action* Report outlines the necessity to improve the quality of teacher knowledge, understanding, delivery and integration of Indigenous content (2015). The purpose of this study is to explore pre-service teachers' knowledge of Indigenous education and their attitudes towards including Indigenous perspectives in the general classroom, prior to and after completing a mandatory introduction to Aboriginal studies course. The purpose was informed by two research questions: 1) What baseline knowledge and attitudes toward Indigenous curriculum integration are pre-service teachers entering and leaving the Faculty of Education with? 2) Does coursework adequately prepare pre-service teachers to confidently integrate Indigenous content into the general classroom? A mixed-method study was conducted using a sequential explanatory design, examining 117 pre-service teachers from Queen's University, Canada. Pre-course and post-course data was collected through surveys and in-depth individual interviews. Survey data analysis indicated differences from pre-course (time 1) to post-course (time 2). Additionally, eighteen individual interviews were conducted. Overall, pre-service teachers had positive attitudes towards integrating Indigenous perspectives into the general classroom but lacked content knowledge and believed that their weakness in preparation to integrate Indigenous Education into the general classroom was due to their teacher education program design.

Findings of this study will be of interest to Faculties of Education, policy makers and teacher educators.

Autobiographical Signature

Both of my parents have Indigenous roots but I did not grow up living on a reserve. Growing up off-reserve, I was often looked at differently by my peers due to negative connotations surrounding my Indigenous heritage. Despite the stereotypical comments, I was not ashamed of my culture but was proud. From a young age, I held in high regard the work of my great-grandfather, Omer Peters. Omer was a political man, who valued sovereignty and self-determination. Aside from serving his people as Chief, Counselor and Administrator on the Moraviantown First Nation in southern Ontario, Omer co-founded the Union of Ontario Indians. In this organization, Omer held office of president and executive director. Today, this First Nations political organization represents 40 First Nation communities across the province of Ontario. In addition to this, Omer helped to establish and was Vice-President of the National Indian Brotherhood, which is known today as the Assembly of First Nations. Although I never met my great-grandfather, his dedication towards creating better lives for our Indigenous peoples has been an inspiration to me.

From my great-grandfather, I feel I have inherited a dedication to social justice and working for the improvement of Indigenous communities. Specifically, I have a strong desire to make a real difference in education for Indigenous peoples. I want to ensure that Indigenous youth are equipped with the educational opportunities to prosper and have the opportunity to celebrate Indigenous knowledge. Through my work, I also hope to help bridge the existing gap between Indigenous and non-Indigenous peoples in Canada.

Acknowledgements

I want to thank my parents. Thank you for constantly encouraging me to challenge myself and for instilling in me the confidence that I can do anything, if I work hard. I am eternally grateful for your love and support. To my sister, I want to thank you for being my confidant in my many moments of uncertainty. Thank you for always being there to ‘cheers’ me in my successes along the way, you have been my rock. To Mitch, Dilan and Andrew, thank you for your blunt honesty (kind of), lightening up my days and reminding me not to always take life too seriously. I put my heart into this degree and I hope I made you all proud.

To the Faculty of Education professors, thank you for helping to shape me both academically and professionally. Through your guidance, I have advanced my research and presentation skills and have become a better academic writer. To Jennifer Davis, thank you endlessly for your warm nature and your constant support and motivation. To Lindsay Morcom, thank you for giving me countless opportunities. From research assistantships to allowing me to co-present with you at the Hawaii International Conference. I cannot thank you enough for your confidence in my abilities and your continuous support in putting my name out in the academic world.

Table of Contents

Abstract.....	ii
Autobiographical Signature.....	iv
Acknowledgements.....	v
Chapter 1 Introduction.....	1
Rational for Study.....	2
Purpose of Study.....	3
Terminology.....	3
Chapter 2 Theoretical Framework and Literature Review.....	4
Tribal Critical Race Theory.....	4
Cognitive Imperialism.....	6
History of Indigenous Education.....	7
Education Policies.....	10
Teachers' Role.....	14
In-service Teacher Knowledge on Indigenous Education.....	14
Pre-service Teacher knowledge on Indigenous Education.....	15
Teacher attitudes toward Indigenous Students.....	16
Chapter 3 Methods and Methodology.....	19
Research Background Information.....	20
Participants and Recruitment.....	21
Phase 1.....	24
Phase 2.....	26
Chapter 4 Results.....	29
Mainstream Teacher Education Students: Time 1 Survey Results.....	30
Mainstream Teacher Education Students: Time 2 Survey Results.....	32
Mainstream Teacher Education Students: Changes Across Time.....	34
Aboriginal Teacher Education Students: Time 1 Survey Results.....	36
Aboriginal Teacher Education Students: Time 2 Survey Results.....	38
Aboriginal Teacher Education Students: Changes Across Time.....	41
Mainstream Teacher Education Students: Interview Results.....	42
Aboriginal Teacher Education Students: Interview Results.....	51
Course Instructor: Interview Results.....	55
Chapter 5 Discussion and Conclusion.....	61

Mainstream Teacher Education Students: Analysis.....	61
Aboriginal Teacher Education Students: Analysis.....	63
Course Instructor Analysis.....	64
Limitations.....	64
Recommendations.....	65
Conclusion.....	66
References.....	68
Appendices.....	75
Appendix A: Prof 502 Course Description.....	75
Appendix B: Surveys.....	76
Pre-Course Survey.....	76
Post-Course Survey.....	79
Appendix C: Interview Guides.....	82
Mainstream Teacher Candidates Interview Guide.....	82
Aboriginal Teacher Education Program Students Interview Guide.....	84
Instructor Interview Guide.....	86
Appendix D: Letter of Information and Consent Form.....	88
Letter of Information.....	88
Consent Form.....	91
Appendix E: Debriefing Letter.....	93
Debriefing Letter for Survey.....	93
Debriefing Letter for Interview.....	94
Appendix F: Recruitment Scrip.....	95
Appendix G: Confidential Agreement.....	97
Appendix H: GREB Approval.....	98

Chapter 1

Introduction

Based on the 2016 Canadian Census, the Indigenous population has grown by 42.5 percent since 2006. This is more than four times the growth rate of the non-Indigenous population over the same period (Statistics Canada, 2016). According to population projections, the Indigenous population is likely to exceed 2.5 million persons within the next two decades (Statistics Canada, 2016). The 2016 census also revealed that more than half of the Indigenous population (over 70 percent) is living off the reserve, mainly in urban centers (55.8 percent). These findings outline two key conclusions: first, Indigenous youth currently account for the highest growing demographic in Canada and second, more Indigenous youth are living off-reserve and attending publicly funded schools than are living on reserve and attending federally funded schools. The *People for Education's* (2017) annual report on Ontario publicly funded schools, indicated that eighty-two percent of Indigenous students attend provincially funded schools in Ontario school boards, and virtually every school in Ontario has students of Indigenous heritage enrolled.

Unfortunately, the majority of teachers lack an awareness and understanding of Indigenous cultures, histories, and political issues (Castagno and Brayboy, 2008; Kanu, 2005). The growing diversity of Indigenous students paired with the continued homogeneity of teachers makes the call for culturally responsive schooling evermore critical (Castagno and Brayboy, 2008). It is essential that we examine pre-service teacher's preparation in obtaining the appropriate content and instructional knowledge on Indigenous education, as it is the responsibility of teachers to treat all students equitably (UN Declaration of Human Rights Art.

26, 1948). Public education is also a key component in the reconciliation process, meaning that teaching Indigenous content and pedagogy in Ontario's 5,000 schools can play a vital role in long-term change for both Indigenous and non-Indigenous students (People for Education, 2017).

Rationale for Study

Studies have consistently outlined the persistent achievement gap between Indigenous and non-Indigenous students in the Canadian public school system (Battiste, 1998; Deer, 2013; Castagno & Brayboy, 2010; Statistics Canada, 2016). Literature has shown that a lack of Indigenous cultural knowledge and perspectives among teachers is a significant factor in the limited achievement of Indigenous students in the Canadian public school system (Kanu, 2005; Battiste, 1998). Vast amounts of research have focused on how the dominant-culture teacher can integrate cultural knowledge into the teaching of regular curricula (Kanu, 2002; Hunter, 2015; Kaomea, 2005; Blood, 2010; Zurzolo, 2010). Needed however, are more studies on teachers' understanding and attitudes towards the integration of Indigenous cultural knowledge and perspectives into the general classroom. Limited research has focused on tracing the preparation pre-service teachers receive in teacher education programs to integrate Indigenous content into the general classroom. This study investigates pre-service teachers' knowledge and attitudes towards the integration of Indigenous content into the general classroom to address part of the current knowledge gap among in-service teachers.

Purpose of the Study

The purpose of this study is to explore pre-service teachers' knowledge and attitudes towards Indigenous education prior to and following the completion of a mandatory *Introduction to Aboriginal studies for Teachers* course at the Queen's University, Kingston, Ontario, B.Ed.

program. The study also seeks to examine the extent to which pre-service teachers at Queen's are trained to implement and address Aboriginal perspectives in the general classroom. This study addresses two research questions:

1. What baseline knowledge of and attitudes toward Indigenous curriculum integration are pre-service teachers entering and leaving the Faculty of Education?
2. Does coursework adequately prepare pre-service teachers to integrate confidently Indigenous content into the general classroom?

Terminology

For the purposes of this thesis, the terms Aboriginal and Indigenous will be used interchangeably as they are collective names that refer to the original peoples of North America and their descendants (Library and Archives Canada, 2017). However, it is important to note that these terms may not necessarily always be the terms used by these peoples to describe themselves (Battiste, 2013). Indigenous/Aboriginal education is referenced in this thesis as the genuine and respectful education about Indigenous history and cultures, for *all learners* (Snowball, 2014).

Chapter 2

Theoretical Framework and Literature Review

In this chapter, I will discuss Tribal Critical Race Theory and Cognitive Imperialism, which are the theoretical lenses that frame this study. Literature related to teachers' (in-service and pre-service) knowledge of and attitudes towards Indigenous education will also be analyzed. Topics included in this literature review will include the history of Indigenous education in Canada, Ontario Ministry of Education Policy Initiatives, the Association of Canadian Deans of Education's Accord on Indigenous Education and the role of a teacher, specifically, teacher knowledge and attitudes towards Indigenous education and how this can impact the classroom experiences afforded to both Indigenous and non-Indigenous students. Most literature available concerns in-service teachers (Kanu, 2005; Riley & Ungerleider, 2008; Kaomea, 2005; Cantu, 2008; Blood, 2010; Aveling, 2006); pre-service teachers' preparation and attitudes towards integrating Indigenous education into the general classroom is a relatively new field with little research available.

Tribal Critical Race Theory

This thesis is structured by Tribal Critical Race Theory (TribalCrit) because it allows the researcher to both explain Indigenous inequality as well as critique a lack of Indigenous knowledge represented in Ontario faculties of education. TribalCrit scholars emphasize that colonization is endemic in society. By colonization, Brayboy (2005) refers to the concept that the goal of interactions between the dominant society and Indigenous peoples has been to change Indigenous peoples into being more like those who hold power in the dominant society. TribalCrit theory places the colonizer at the forefront providing a theoretical lens for addressing

many of the issues facing Indigenous communities today. A key component of TribalCrit is a recognition that governmental policies and educational policies toward Indigenous peoples have historically been oriented toward assimilation (Brayboy, 2005). Early American treaties, for instance, indicated that the Bureau of Indian Affairs (BIA) was to provide appropriate education to Indigenous students. However, the BIA defined ‘appropriate education for Indigenous students’ to be that which eliminated ‘the Indian’. Similarly, in a Canadian context, the deputy superintendent of the Department of Indian Affairs at the time, Duncan Campbell Scott stated, “Our object is to continue until there is not a single Indian in Canada that has not been absorbed into the body politic, and there is no Indian question, and no Indian Department [sic.] that is the whole object of this Bill.” TribalCrit scholars reject the role of assimilation in educational institutions and take an active role in making institutions of formal education more understandable to Indigenous students and Indigenous students more understandable to the institutions (Brayboy, 2005). Brayboy (2005) states that to be successful, Indigenous peoples must maintain a strong sense of their Indigenous identity as distinctive and as a source of pride. Through using the Tribal Critical Race Theory, this thesis exposes inconsistencies in the policies of educational institutions, specifically teacher education programs, in their failure to benefit and improve the educational experience for Indigenous students.

Cognitive imperialism

The concept of cognitive imperialism is used in this thesis to draw attention to the relationship between power, knowledge, ideology and schooling (Giroux, 1992). It raises the question of how knowledge is constructed and translated within and between disproportionate relations of power in society. According to Battiste (2005) cognitive imperialism is a form of cognitive manipulation used to discredit other knowledge bases and values, while seeking to

validate one source of knowledge and one frame of reference, and empower it through public education. Through cognitive imperialism, widely diverse groups of people have been denied inclusion in public education, while only a privileged group have defined themselves as normative and ideal (Giroux, 1992). As a result, cultural minorities have been led to believe that their poverty and impotence is a result of their race (Battiste, 2005). For example, Kanu's (2005) study found that many Indigenous students deny their Indigenous ancestry or identity due to negative stereotypical images of Indigenous culture.

Regarding Indigenous education, specifically, Battiste (2005) argues that public schooling has been used to perpetuate damaging myths about Aboriginal cultures, languages, beliefs, and ways of life. She argues that the most serious problem with the current system of education is its quest to limit thought to cognitive imperialistic policies and practices (Battiste, 2005). Cognitive imperialism is used as a framework in this thesis to reinforce the critical role that teachers have in knowledge distribution. For instance, a teacher who ignores post-contact history from Indigenous perspectives can promote images in the minds of students that white Euro-Canadian dominant culture is superior to the inferior Indigenous culture (Giroux, 1992). Additionally, teaching about Indigenous people as confined to their interactions with European settlers suggests that the value of Indigenous people lies in their ability to assist European settlers in the building of a new nation as opposed to instilling in students the recognition that Indigenous peoples were established, self-reliant and self-governing nations before to European contact (Giroux, 1992). Educators need to take a critical look at their own "cognitive manipulation" toward images of Indigenous peoples before reproducing them in the general classroom.

Literature Review

In this section, I will discuss the history of Indigenous education in Canada and current education policies. I will also discuss the ways that these policies impact the responsibilities and duties of general education teachers. Literature related to teachers' (in-service and pre-service) knowledge of and attitudes towards Indigenous understandings was reviewed, as well as whether teachers' knowledge and/or attitudes impact on classroom experiences afforded to Indigenous and non-Indigenous students.

History of Indigenous Education

To fully understand Indigenous education, it is important to examine Indigenous pedagogy prior to European contact. The “curriculum” for education in traditional Indigenous communities was to impart communal history, spirituality, tools for personal moral growth and practical skills (Morcom, Freeman & Davis, 2018). As Morcom et al. (2018) outline, the common thread in Indigenous pedagogy was by method of which ‘curriculum’ was traditionally taught. This included language teaching, modelling, regular experience of practical situations, and above all, storytelling. It was essential for teachers to be story-tellers, and to be a storyteller required diligence. Morcom et al. (2018) point out that it took years of listening to stories to be able to absorb their true meanings. Teachers were required to understand relationships between all aspects of life, as the “curriculum” in traditional Indigenous communities was undertaken from a holistic standpoint.

With the coming of the missionaries to Indigenous communities across Canada, Indigenous people were exposed to a very different form of education, including a very different view of who should teach, what curriculum should be taught, and how that curriculum should be delivered (Morcom et al., 2018). The first known educational institutions for Indigenous students

were established by the Recollect missionaries in 1620 (White & Peters, 2009). The French believed that Indigenous peoples need to be assimilated into “Frenchmen” before they could be converted to Christianity. Indigenous boys were recruited for schooling, educated at the seminary or sent to France, where they could be fully immersed in French culture and language (White & Peters, 2009). The teaching methods employed were different from those used in traditional Indigenous societies and failed to adapt methods to suit children (Morcom et al., 2018). The establishment of settled communities and the implementation of church-run schools within them, reduced Indigenous people’s dependence on subsistence economy (White & Peters, 2009). This was the beginning of a long process of colonial and federal assimilation.

Residential schools. Prior to the War of 1812, the British were not concerned with assimilating Indigenous peoples, as the British relied on Indigenous knowledge and skills to be essential partners’ in the fur trade (White & Peters, 2009). However, after the War of 1812, the *British North American Act* of 1867 was created. Under the *British North American Act*, all aspects of Indian affairs become the responsibility of the Canadian federal government, including education. Although residential schools were established prior to Confederation, their use as a tool for assimilation began in 1876 with the *Indian Act*, which codified various rules aimed to control and assimilate Indigenous peoples (Morcom et al., 2018).

The residential school system operated between 1870 and 1996 across Canada (TRC, 2014). The system separated Indigenous children from their families for extended periods and forbade them to acknowledge their Aboriginal heritage or to speak their own languages (Canadian Baptists, 2016). More than 150,000 First Nation, Inuit and Métis children were forcibly taken to attend these government-funded schools (TRC, 2014). According to Indigenous Foundations (2009), the nominal objective of residential schools was to educate Aboriginal

children, but the more damaging and equally explicit objective was indoctrinating them into Euro-Canadian and Christian ways of living. The education received in residential schools in twentieth century was minimal and basic. Many teachers did not hold a teaching certificate and the principals were mostly clergymen, who had little experience with developing instructional programs (White & Peters, 2009). According to Barman, Hebert and McCaskill (1986), as of 1930, three-quarters of all Indigenous students attending residential schools were operating at grade 1 to 3 levels. Only 3% of Indigenous students in residential schools progressed past grade 6, compared to the ~33% of students who were obtaining levels beyond grade 6 in the provincial school system at the time (Barman & Hebert & McCaskill, 1986). It is now accepted that, “the establishment of formal Canadian educational institutions and curriculum mostly bypassed First Nations children. The residential school system systematically denied an adequate education to First Nations children and youth for over five generations (Frideres, 2016).” The residential school system has led to an intense distrust of the education system amongst Indigenous peoples (Fleming & Southwell, 2005).

Indian Control over Indian Education. In the 1960s and 1970s, Indigenous people were becoming increasingly aware of education as a tool to annihilate Indigenous language and culture (Morcom et al., 2018). The 1967 *Hawthorn Report* highlighted the inequality faced by First Nations through the residential school system. The report acknowledged that residential schools have been ineffective as tools for assimilation and made several recommendations including the dismantling of the residential school system (Morcom et al., 2018). Based on some of the report’s recommendations, then-prime minister Pierre Trudeau and Minister of Indian Affairs and Northern Development Jean Chrétien moved to make amendments to the *Indian Act*. The Trudeau Liberal government believed that for the conditions of Indigenous peoples to be

improved they needed to be made full and equal citizens in Canadian society (White & Peters, 2009). A White Paper policy, issued in 1969, proposed the complete integration of First Nations children into the existing provincial and territorial education systems. The federal government's intention, as described in the White Paper policy, was to achieve equality among all Canadians by eliminating *Indian* as a distinct legal status and to break treaty obligations (Indigenous Foundations, 2009). One of the most significant position papers voicing Indigenous opposition to the terms of the White Paper was the National Indian Brotherhood's 1972 paper titled *Indian Control of Indian Education* (ICIE).

The National Indian Brotherhood's paper was a comprehensive statement of the need for local control of Indigenous education. The policy paper states: "Unless a child learns about the forces which shape him: the history of his people, their values and customs, their language, he will never really know himself or his potential as a human being. The Indian child who learns about his heritage will be proud of it. The lessons he learns in school, his whole school experience, should reinforce and contribute to the image he has of himself as an Indian (ICIE, 1972)." The policy was to improve Indigenous education and academic achievement among Indigenous peoples. Despite then Minister of Indian Affairs, Jean Chrétien's affirmation of the *Indian Control of Indian Education* policy, the full intent of the policy was not supported in a meaningful manner and education policies are still very much controlled by federal, provincial or territorial governments (Assembly of First Nations, 2010).

Education Policies

Truth and Reconciliation Commission's (TRC). Following the ICIE policy, there have been ongoing developments to revitalize the relationship between Indigenous peoples and non-Indigenous peoples in Canada, in terms of education. The initiation of the 1996 RCAP multi-

volume report and the 2007 “Indian Residential School Settlement Agreement” led to the establishment of the Truth and Reconciliation Commission’s (TRC). In 2015, (TRC) released a *Calls to Action report*, which is the result of a class action lawsuit representing victims of the Indian Residential School system. The list of 94 recommendations outlined on the *Calls to Action report* urges all levels of government to work together and move toward reconciliation.

In regards to education, the TRC asserts that educational reform needs to be based on principles of self-government, a culturally relevant curriculum and stable funding (2015). More specifically, the 62nd call to action states that Canada should maintain an annual commitment to Aboriginal education issues including: 1) developing and implementing kindergarten to grade twelve curriculum and learning resources on Aboriginal peoples in Canadian history, and the history and legacy of residential schools; 2) sharing information and best practices on teaching curriculum related to residential schools and Aboriginal history; 3) building student capacity for intercultural understanding, empathy, and mutual respect; and 4) providing teacher-training needs relating to the above (TRC, 2015).

Ontario Ministry of Education Policy Initiatives. Since the release of the TRC, the Ontario Ministry of Education has acknowledged their commitment to improving Indigenous education and teacher training in Ontario. Ontario’s Indigenous Education Strategy sets the foundation for improving achievement among Indigenous students in provincially funded schools (Ministry of Education, 2015). A significant part of the strategy is to raise awareness about First Nation, Métis, and Inuit peoples’ cultures, histories, perspectives and contributions, among all students, in Ontario schools. (Ministry of Education, 2015). The TRC outlines the importance of Professional Development (PD) “to educate teachers on how to integrate Indigenous knowledge and teaching methods into the classroom (Truth and Reconciliation

Commission of Canada, 2015).” As part of Ontario’s commitment to reconciliation with Indigenous peoples (since...2016) Ontario’s faculties of education have been required to provide mandatory Indigenous content in Teacher Education Programs (Government Ontario, 2016).

Despite this mandatory education, teachers still report receiving little education in this area and are consequently reporting low levels of confidence in teaching and speaking about Indigenous topics due to a lack of Indigenous content in the mandated curriculum (Nardozi & Mashford-Pringle, 2014; Kanu, 2005). Godlewska et al. (2017) argue that serious and reliable coverage of Indigenous content and topics is thin in both elementary and secondary education. The elementary curriculum and its supplementary resources keep Indigenous perspectives and histories on the periphery (Snowball, 2014). For instance, the Grade 3 social studies curriculum provides opportunities for engagement with Indigenous content, where students are expected to describe the communities of early settlers and First Nation peoples in Upper Canada around 1800. Snowball (2014) argues that this curricular document is settler-focused as it does not address Indigenous histories prior to contact. Similarly, Snowball (2014) contends that Grade 5 social studies curriculum is not much better as it asks learners to dissect and describe ancient civilizations, of which Indigenous communities are included with groups from across the world. At the secondary education level, Godlewska et al. (2017) found serious misrepresentation and reinforcement of prejudice in the curricula and texts taken in Canadian geography. The texts were found to have no reference to treaties, however the texts did assert that ‘Indians’ on reserves are non-tax paying and that ‘tuition as well as travel and living expenses’ are provided for all ‘Aboriginal students for the first four years of post-secondary education’ (Godlewska et al., 2017). Godlewska et al. (2017) argue that this misrepresentation goes some way to explaining the powerful prejudices surrounding Indigenous peoples. As outlined by Godlewska

et al. (2017) the K-12 curriculum suffers from a lack of context, problematic placement and associations, the intrusion of settler perspectives, deep contradiction over judgment about topics related to First Nations, Métis and Inuit peoples, and inconsistency that together undermine any efforts at reform. It is understood that in the past year (2018) there have been developments made to update the Grade 7 and Grade 8 curricula in Indigenous studies and the Grade 11 English curriculum. As of July 2018, the Ontario Ministry of Education cancelled the project to update provincial curriculum documents with Indigenous content.

Association of Canadian Deans of Education. The Association of Canadian Deans of Education (ACDE) recognizes the need for transformative educational change in regard to Indigenous education (2010). The ACDE's *Accord on Indigenous Education* was launched in 2010 with the vision that Indigenous identities, cultures, languages, values, ways of knowing, and knowledge systems will flourish in all Canadian learning settings (2010). The *Accord on Indigenous Education* fosters the following goals; Respectful and Welcoming Learning Environments, Respectful and Inclusive Curricula, Culturally Responsive Pedagogies Mechanisms for Valuing and Promoting Indigeneity in Education, Culturally Responsive Assessment, Affirming and Revitalizing Indigenous Languages, Non-Indigenous Learners and Indigeneity and Culturally Respectful Indigenous Research (ACDE, 2010).

Concerning teacher education, the ACDE states a commitment, “to provide opportunities within all teacher education programs for candidates to have authentic experiences in a variety of Indigenous learning settings, whether urban, rural, remote, band-funded, or provincially funded (2010).” The ACDE also commits, “to foster all education candidates’ political commitment to Indigenous education, such that they move beyond awareness and act within their particular sphere of influence (2010).”

Teachers' Role

As Hattie (2013) states, the significant influence of educational power lies “in the person who gently closes the classroom door and performs the teaching act –the person who puts into place the end effects of so many policies, who interprets these policies, and who is alone with students during their 15,000 hours of schooling.” What teachers know, do, and care about is very powerful in the learnings of students (Hattie, 2003). As such Wotherspoon (2008) argues that teachers play a direct role when it comes to fostering a strong ground for Indigenous people’s incorporation into a colonial and economic environment through their emphasis on information and knowledge work.

In-service teacher knowledge. In exploring the integration of Indigenous culture amongst mostly non- Indigenous in-service teaching professionals, Kanu (2005) found teachers’ own lack of the Indigenous cultural knowledge and understandings to be the biggest challenge for effective integration. More specifically, the lack of familiarity with Indigenous approaches to teaching and learning was reported to be a serious impediment to integration because it meant that the teachers in the study did not have the pedagogical content knowledge (i.e., the useful forms of knowledge, representation and examples from Indigenous culture) to make the curriculum comprehensible to their Aboriginal students (Kanu, 2005). Similarly, Blood (2010) found that teachers were not incorporating Aboriginal perspectives into their teaching due to lack of: confidence, knowledge of Indigenous content, ability to access members from the Indigenous community, school support, professional development opportunities and knowledge of what they are exactly supposed to teach. Kaomea’s (2005) study found similar concerns in Indigenous studies: in which many teachers unanimously reported feeling inadequately prepared. In addition to a lack of instructional preparation, many classroom teachers in Kaomea’s (2005) study argued

that there is a limited supply of outdated instructional resources and insufficient funds to support comprehensive curriculum in this subject area. Teachers argue that there is a great need for further support in curriculum implementation of Indigenous perspectives (Kanu, 2005; Blood, 2010). Capella-Santana (2003) argues that limited knowledge of Indigenous cultural backgrounds limits a teacher's ability to teach this material and the overall academic experiences afforded to Indigenous and/or non-Indigenous students.

Pre-service teacher knowledge. There is a pattern within Australian, Canadian and American literature of segregation and limited coverage of Indigenous content and poor transfer of effective teaching skills in pre-service teacher education (Moreton-Robinson et al., 2012). Deer (2013) investigated teacher candidates' comfort and apprehension with the prospect of integrating Indigenous perspectives into their teaching practices. Deer (2013) found that when it came to pre-service teacher knowledge of and experiences with Indigenous culture, most of it was acquired in a manner that focused on an artefact or aspect of content that did not adequately cite or celebrate the respective people, community or culture under discussion. The reasons provided for the apprehension communicated by teacher candidates in the study were the fear of failure, discomfort with the subject matter, guilt, and not being Indigenous (Deer, 2013). Similarly, Nardozi (2016) also found that the majority of teacher candidates entering into a B.Ed. program in mainstream institutions have little knowledge of Indigenous content. The study also found that many teacher candidates considered unimportant and some teacher candidates held racist stereotypes of Indigenous peoples (Nardozi, 2016). Kerr (2014) also argues that in her experience, most non-Indigenous teacher candidates do not have an interest in engaging with Indigenous perspectives and decolonial work. Aveling (2006) states that in attempts to discuss race and racism in course instruction there is often resistance when the teacher education

classroom setting consists mostly of non-Aboriginal students. Nardozi (2016) asserts that teacher candidates' will continue to recreate those discourses in their recognition in their future classrooms until they recognize their privilege and the role of White supremacy in the creation of their own identities, they will recreate those discourses in their future classrooms.

Teacher attitudes. Studies suggest that teachers are prone to the influence of stereotypes (Kanu, 2005; Riley and Ungerleider, 2008). Reyna (2000) views teacher stereotypes through an attribution lens that conveys stereotypes through one of three patterns. First, there are some stereotypes that when used as explanations for behaviors imply internal, stable and controllable causes (Reyna, 2000). For instance, some minority groups such as Aboriginal peoples, have been stereotyped as "inherently lazy." Since laziness is an undesirable but controllable trait, a teacher influenced by this stereotype may assume that a stereotyped student who has not completed his or her homework has *chosen* to be lazy (Reyna, 2000). Teachers and schools may be more likely to place stigmatized students, perceived as lazy, in a lower-ability classroom regardless of ability (Reyna, 2000). Second, there are also stereotypes that suggest a trait, attribute, or behavior is beyond the person's control. In this case, a student may be stereotyped as low-ability (Reyna, 2000). This stereotype evokes the notion that a learner's poor test performance is the result of inherent (and thus uncontrollable) ability (Reyna, 2000). As a result, a teacher who believes a student is incapable of success due to lack of ability may be less likely to recommend that student for future opportunities. Third, there are some stereotypes where the cause of a negative state is external to the student. For instance, if the stereotype obtained for a failing Indigenous student is "Indigenous peoples are disadvantaged" than the stereotyped student is exempt from responsibility for his or her predicament. However, teachers may feel unable to assist the student if they believe that the problems the student faces are unconquerable (Reyna, 2000). It is the

recognition of the significant influence teachers have on the educational success of students combined with the influence their attributions have on the decisions made about their students, that raises questions about bias.

As found by Riley and Ungerleider (2008) teachers are more likely to base decisions about students on limited social and behavioural cues (such as the socio-economic status of the student's family) rather than on a rational, systematic basis. While teachers do think about how a student is being assessed, the way in which they view their students reveals more about their expectations and biases than it does about student potential as represented by the grades expressed on report cards (Riley, 2005). To determine whether teachers make discriminatory judgements about students on the basis of attributed characteristics, Riley and Ungerleider (2008) asked preservice teachers' to estimate students' academic achievement based on specific knowledge of those students. Academic achievement could be formed on the basis of prior or current academic performance, comments made by former teachers, standardized test scores, and information irrelevant to the student's performance such as ascribed characteristics of race, ethnicity, sex, or physical appearance (Riley and Ungerleider, 2008). Results showed that Aboriginal students consistently earned lower academic achievement recommendations than their non-Aboriginal peers, despite the fact that the fictional students in Aboriginal and non-Aboriginal categories had identical records of prior achievement (Riley & Ungerleider, 2008). A significant difference was found among students with a lower GPA level. Riley & Ungerleider (2012) condemn this as troubling because it is at the lower achievement levels that students are most at risk of being placed in a remedial classroom (Riley & Ungerleider, 2012). Students placed in remedial classrooms are less likely to advance to the higher-level courses that may enable them to attain university acceptance (Riley & Ungerleider, 2012). Teachers' influential

position means that the attributions they place on students that are based upon stereotypes can have a large effect on students (Riley and Ungerleider, 2012). The attributions teachers communicate through behavioral cues or academic assessments can positively or negatively influence the attributional interpretations the students have of their academic potential (Georgiou, 2008).

Chapter 3

Methods and Methodology

Methodology

This study used a mixed-methods design, which is a design used for collecting, analyzing, and mixing both quantitative and qualitative-based measures within a single study to gain more depth of understanding and corroboration to the research problem (Creswell, 2002). The rationale for using a mixed method study was that neither quantitative nor qualitative methods were sufficient by themselves to understand pre-service teachers' knowledge and attitudes about Indigenous education. Previous research into this area has primarily been qualitative and has provided only a limited understanding of teachers' knowledge and attitudes toward Indigenous education. Adding a quantitative measure to the research design, allows for a larger scope into pre-service teachers' knowledge and attitudes. When combined, qualitative and quantitative measures provide strengths that offset their weaknesses, allowing for a more complete analysis and an in-depth understanding of the research problem (Creswell, 2002; Tashakkori & Teddlie, 1998).

This study used a sequential explanatory mixed-method design (Creswell, 2002). It involves, "a collection and analysis of quantitative data followed by a collection and analysis of qualitative data (Creswell, 2002)." The purpose of sequential explanatory is to use qualitative results to assist in explaining and interpreting the findings of a quantitative study (Creswell, 2002).

Research Background Information

Prof 502: Introduction to Aboriginal Studies for Teachers (Course description; see

Appendix A) is a 12-hour course over six days. At the end of the 12-hour course, students are to be able to 1) understand the history, culture and diversity of Aboriginal Canadians 2) integrate Indigenous perspectives into their classrooms (Faculty of Education, Queen's University).

Since June 2017, the program requirements for Bachelor of Education students at Queen's University include *Prof: 502: Introduction to Aboriginal Studies for Teachers*, as part of their program requirements. There are two cohorts of students in the Bachelor of Education program: concurrent education students and consecutive education students. Consecutive education students have two more semesters (summer 1 and summer 2) to take than concurrent education students. Since *Prof 502: Introduction to Aboriginal Studies for Teachers* is only offered in the summer 2 semesters, concurrent education students are not required to take the course, unless they choose to enroll for an extra semester (note: the class of 2019 will be the last cohort following this model, after which point all students will take both summers). Therefore, *Prof 502: Introduction to Aboriginal Studies for Teachers* consists primarily of consecutive education students. Consecutive students are further divided into two sub-groups: Aboriginal Teacher Education Program (ATEP) students and non- Aboriginal Teacher Education Program students. ATEP students receive 74 hours of Indigenous cultural perspectives in the classroom but are still required to take the introductory course. For many non-ATEP students, *Prof 502* may be the only course in which they are exposed to Indigenous perspectives and curriculum integration in their bachelor of education program.

For context purposes, it is important to know that I was also a teaching assistant for this course. To avoid bias in my research, I created survey and interview guides and cleared them through ethics before the course started. I also hired a research assistant (RA) to distribute the letter of information, the consent forms and the surveys to the students. Students could opt out of

the survey but as the course instructor, teaching assistants, and I, left the room while students completed survey, we had no way of identifying participants and non-participants. We repeated the same process for the second survey. The RA collected the completed surveys and consent forms and kept them sealed in an envelope in a locked file cabinet until the final grades for the course had been submitted. Once the final marks were given, I was given access to the surveys and was able complete the interview process of the research.

Methods

Participants. The participants of this study were teacher candidates from the Queen's University Bachelor of Education program, Canada. The sample of participants were the teacher candidates who were required to take *PROF 502: Introduction to Aboriginal Studies for Teachers* as part of their program requirements. 117 pre-service teachers (out of the total of 180 pre-service teachers) chose to participate in both a pre- and post-course survey. In total, 7 of the participants were ATEP students and 110 participants were not in the Aboriginal Teacher Education Program. It's important to acknowledge that not all ATEP students are Indigenous and not all Indigenous students were part of ATEP. As Indigenous students and non-Indigenous students have wide-ranging knowledge bases on Indigenous content, the researcher did not ask participants to self-identify with respect to Indigeneity.

**31 of the 117 participants agreed to take part in individual interviews. The sampling technique chosen for this study was purposive random sampling. This sampling technique involves the "random selection of a small number of cases from a larger population (McMillian & Schumacher, 2010, p. 399)." Participants were randomly selected for the interview phase from the two sample groups: ATEP students and non-ATEP students until an overall total of 18 participants had been chosen. Since there are fewer ATEP students among teacher candidates, all

four ATEP students who volunteered to be interviewed were selected. The remaining 14 spaces for non- ATEP participants were chosen by blindly picking out consent forms from a box. In addition to pre-service teachers, the course instructor of *Prof 502: Introduction to Aboriginal Studies* was also interviewed.

By focusing on pre-service teachers at one university, the researcher could begin to provide an accurate description of the knowledge and attitudes towards Indigenous education among pre-service teachers'. This was an important factor because the researcher was able to evaluate the programming and provide recommendations for program improvements at one institution.

Recruitment. After having received ethical clearance from the university to conduct the study, the researcher sought permission from the course instructor of PROF 502: Introduction to Aboriginal Studies for Teachers to recruit students during class time (See Appendix H).

The first phase of recruitment began on the first day of the course. During class time, the course instructor allowed time for the researcher to introduce the thesis research. During this time, the researcher provided a verbal description of the study (as detailed by the recruitment script; See Appendix F). Pre-service teachers were told that participation in the study was voluntary and that neither the researcher nor the course instructor would have any access to the surveys until the final grades for the course had been submitted. The course instructor, the teaching assistants and the researcher left the room and the research assistant distributed the Letter of Information (LOI), the Consent forms (CF) with the brief five-question survey. Informed consent was requested for all three phases of data collection with the LOI/CF (See Appendix D). The research assistant who signed a confidentiality agreement form (See Appendix

G) collected the survey's and LOI/CF and kept the surveys sealed in an envelope in a locked file cabinet.

The second survey was distributed on the last day of the course. Similar to the first survey, the course instructor, teaching assistants and researcher left the room while the research assistant distributed the final survey to students. A check box was provided on the second survey for participants to confirm that they had filled out the first survey. This was later double checked by the researcher through matching the first three letters of participant's last name and the first two letters of their first, which participants were asked to provide on both surveys.

Unfortunately, participants who did not participate in the first survey were unable to participate in the second survey as the purpose of the research was to evaluate changes from the beginning of the course to the end of the course. However, there was a space for those who did not participate in the first survey to provide an e-mail address, if they wanted to participate in the interview phase of the research. By giving participants class time to fill out the surveys there was an increased response rate for the surveys.

The second phase of recruitment began after the final marks of the course had been submitted and the researcher had access to the survey data. Eighteen participants were selected randomly from the pre-service teachers who indicated (on the survey) an interest in the interview component of the research. The course instructor was also interviewed during this phase.

There were two main forms of data collection: Phase 1 involved the use of a survey distributed at two specific points in time (See Appendix B), and phase 2 consisted of semi-structured individual interviews (See Appendix C).

Phase 1

Survey. The pre-course survey consisted of five statements. Participants were to read each statement and rank it from 1 (strongly disagree) to 5 (strongly agree). The original 3-point Likert-scale was modified to a 5-point Likert-type format to allow for more flexibility in participant answers and more variability in the data. Under each statement, space was provided for participants to expand on their answers. At the end of the survey, there was also space for any additional comments.

Procedure for data collection. The survey was distributed at two different times: Time 1 occurred pre-course (before any teaching had begun) and Time 2 occurred post-course (on the final day of the course). The survey was printed to be completed by hand to increase participation rates. The survey took participants approximately 5 minutes to complete each time.

Statement Questions: Statement questions were used to get a better understanding of pre-service teachers' knowledge and attitudes. Statement questions state a fact or opinion. Each statement question was developed to measure participants' attitudes or knowledge on Indigenous education.

Knowledge. Pre-course survey statements on knowledge were used to get a general idea on the amount of Indigenous knowledge that participants had at the beginning of the course and their confidence to integrate the content into the general classroom. Post-course survey statements were used to determine any increases in knowledge and confidence among participants to integrate Indigenous content into the general classroom.

Attitudes. Pre- course survey statements on attitudes were used to determine participant attitudes toward Indigenous education. This section included questions about whether participants wanted to be taking this course, if participants believed Indigenous education was an

important course to take and if participants liked learning about Indigenous issues and histories. Post-course survey statements investigated any significant changes in participant attitudes toward Indigenous education as well as provided information on participants views of the course for recommendation purposes.

Data Analysis

The purpose of the research was to evaluate changes from the beginning of the course to the end of the course as such, pre-course and post-course surveys were matched by hand for each participant. To be able to match the surveys for each participant, participants were asked to provide the first three letters of their last name and the first two letters of their first. Additionally, to separate Aboriginal Teaching Education Program (ATEP) students and non- Aboriginal Teaching Education Program students, ATEP participants were asked to self-identity.

On each survey (pre-course and post-course), participants were instructed to give the statement questions a score from 1 (strongly disagree) to 5 (strongly agree). The scores for each participant were entered on Excel and were categorized into either 'knowledge' or 'attitudes' based on the statement question. ATEP students' data was then separated from the mainstream pre-service teachers' data. Frequency calculations for each group was obtained using excel and was later constructed into table format.

Data analysis for time 1 and time 2. The researcher analyzed changes from Time 1 (Pre-Course) to Time 2 (Post-Course). To examine significant differences across Times 1 and 2, effects sizes (using Cohen's *d*) were calculated to examine the magnitude of significant differences. Cohen's *d* is determined by calculating the mean difference between two groups of data (in this case Time 1 and Time 2 surveys) and is one of the most common ways to measure effect sizes. To calculate Cohen's *d* the sample mean (*M*), sample standard deviation (*s*) and

sample size (n) is needed for each data set (Cohen, 1988). Cohen's d was conducted for ATEP students' and mainstream students' separately. Estimates of magnitude ranges were interpreted based upon a small effect around $d = .20$, a medium effect around $d = .50$, and a large effect greater than $d = .80$ (Cohen, 1988).

Phase 2

Interview. Eighteen 20-minute individual student interviews were conducted and one 20-minute individual interview with the course instructor was completed; all interviews consisted of semi-structured questions.

Data collection. Eighteen participants out of a total 117 (10% of pre-service teachers) were invited to participate in follow-up individual interviews. Each interview was approximately 20-minutes per participant. The longest interview conducted was 25 minutes and the shortest was 10 minutes. Each participant was given a \$10 gift card to either Starbucks or Cineplex for their participation.

Participant demographics. Out of the eighteen participants, 4 of them were in the Aboriginal teacher education program. The other 14 participants were in the mainstream teacher education program (not in ATEP). The 18 participants consisted of 15 females and 3 males. Out of the 18 participants, 3 participants self-identified as Indigenous.

Instruments and procedures. General questions were used to gain insight into participant knowledge and attitudes about Indigenous education. To begin the interviews, participations were asked to reflect on their learning experiences related to Indigenous education in their own experiences as a student (i.e. elementary, post-secondary, undergrad). When discussing knowledge, participants were asked how coursework in PROF 502 helped to prepare them to integrate Indigenous education into the general classroom. Participants were also asked about

their attitudes towards Indigenous education prior to taking the course and were asked to reflect on changes in attitudes as a result of the course. To get further perspective on the Bachelor of Education experience, participants were asked to expand on their answers, and to discuss if there were certain experiences in their Bachelor of Education program that led to their preparedness or lack of preparedness to integrate Indigenous perspectives into the general classroom.

Participants were also asked course-improvement questions; focusing on course content, placement and length of the course.

The course instructor of the course *Prof 502: Introduction to Aboriginal Studies* was also interviewed by the researchers. The purpose for interviewing the course instructor was to gain insight into the success or lack of success of the course format. The course instructor was asked about attitudes towards teaching the course, perception of student attitudes towards taking the course as well as the time placement of the course and the course length. The course instructor was also asked course-improvement questions and recommendations for the University to consider. The course instructor was reminded before starting the interview that by being the course instructor, he/she was identifiable.

Data Analysis

When analyzing the interviews, inductive coding analysis was used to allow for general themes and conclusions to emerge from the content of raw data (Thomas, 2006).

Transcribing the data. The interviews were audio recorded and transcribed verbatim by the researcher using Microsoft Word. After the transcription of each interview was completed, the researcher reviewed the audio recording twice to ensure it matched the transcription completely. Words such as ‘like’, ‘um’, ‘uh’, were left in the transcription to help to show the participants’ thought process.

Open coding. The open-coding process began through a question by question basis. The researcher first went line-by-line analyzing each participants' answers to each question to construct descriptive open codes. The researcher went through the data a second time to ensure no codes had been missed. Open codes were assembled into similarities to construct axial codes. The software NVivo was used to help organize the coding nodes into axial codes.

Themes. Next, the researcher analyzed the coding nodes for similarities to create themes. Teacher candidate participants as well as the course instructor were analyzed through two headings: knowledge and attitudes. There was an average of two themes per heading (knowledge and attitudes). The results section that follows presents these themes in further detail.

Integrative Analysis of Phase 1 and Phase 2: Mixing of the data consisted of integrating the two databases by merging the survey data with the interview data. Through combining the two data sets during the interpretation stage, the researcher could gain insight into the change process than either data set could have produced alone (Caracelli et al, 1993).

Chapter 4

Results

The objective of this mixed-method study is to examine pre-service teachers' knowledge of Indigenous education and their attitudes towards including Indigenous perspectives in the general classroom, prior to and after completing a mandatory *Introduction Aboriginal Studies for Teachers* course. More specifically, with what baseline knowledge of and attitudes toward Indigenous curriculum integration are pre-service teachers entering and leaving the Faculty of Education? And does coursework adequately prepare pre-service teachers to integrate confidently Indigenous content into the general classroom? This chapter includes the findings based on A) phase 1 survey data: Time 1 data (pre-course data), and Time 2 data (post-course data) B) phase 2 interview data: one-on-one interview data collected after the completion of the course. This chapter presents the results of this study, which are split into two sections: survey results and interview results.

Survey Results:

A total number of 117 participants completed the survey at both time 1 and time 2. Two categories were used to analyze the survey data: knowledge and attitudes. Survey data is divided into two sample groups; Aboriginal Teacher Education Program (ATEP) students and mainstream teacher education students (students were not in the Aboriginal Teacher Education Program).

Mainstream Teacher Education Students

Time 1

Knowledge. Frequency calculations were conducted to examine pre-service teachers pre-

course knowledge of Indigenous content. Results are presented in Table 1.

Table 1

Time 1: Pre-Service Teachers (excluding ATEP students) Pre- Course Knowledge of Indigenous Content; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Based on my current knowledge (of what I learned in education system), I feel prepared to address Indigenous content in the general classroom	32 (29%)	37 (34%)	22 (20%)	18 (16%)	1 (0.009%)
I learned about Indigenous perspectives and how support Indigenous students in my other teaching education courses	12 (11%)	46 (42%)	20 (18%)	30 (27%)	2 (0.02%)

63% of participants feel unprepared to address Indigenous content in the general classroom, with 29% of participants feeling strongly unprepared. In comparison, 16% of participants feel prepared to address Indigenous content in the general classroom, with one participant (0.009%) feeling strongly prepared. When asked about their learning in other teacher education courses, 53% of participants said that they did not learn about Indigenous perspectives and how to support Indigenous students in their other teaching education courses, while 27%

of participants said they had.

Attitudes. Frequency calculations were conducted to examine pre-service teachers (excluding ATEP students) pre-course attitudes towards Indigenous education, specifically, their own attitudes towards learning about Indigenous perspectives. Results are presented in Table 2.

Table 2

Time 1: Pre-Service Teachers (excluding ATEP students) Pre- Course Attitudes towards Indigenous education; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I like learning about Aboriginal issues and histories	1 (0.009%)	0 (0%)	10 (0.09%)	39 (35%)	60 (55%)
I want to be here taking a course on an Introduction to Aboriginal studies	1 (0.009%)	6 (0.05%)	4 (0.04%)	36 (33%)	63 (57%)
I think it's important to take a course on Aboriginal education	0 (0%)	0 (0%)	4 (0.04%)	25 (23%)	81 (74%)

90% of participants enjoy learning about Aboriginal histories and issues, with 55% indicating that they strongly enjoy learning about Aboriginal histories and issues. 0.09% of participants revealed that they neither enjoy nor dislike learning about Aboriginal histories and issues.

One participant (0.009%) indicated a strong dislike towards learning about Aboriginal histories and issues. When participants were asked if they wanted to be taking this course *Prof 502: Introduction to Aboriginal studies*, 90% of participants said yes. 6% of participants do not want to be taking an Aboriginal studies course and 4% of participants were neutral (neither wanted to be taking this course nor did not want to be taking this course).

Time 2

Questions pertaining to knowledge and attitudes were distributed to participants on the last day of the course (Introduction to Aboriginal Studies for Teachers). Similar to Time 1 data, results are presented in order of knowledge and attitudes.

Knowledge. Frequency calculations were conducted to examine pre-service teachers (excluding ATEP students) post-course knowledge of Indigenous content. Results are presented in Table 3. 96% of participants believe they gained more knowledge on Indigenous perspectives and how to support Indigenous students than they previous had, as a result of the course. Out of the 96%, 51% of participants strongly believe that the course provided them with more knowledge on Indigenous perspectives and how to support Indigenous students. In comparison, 2% of participants strongly disagree that the course provided them with more knowledge on Indigenous perspectives and how to support Indigenous students. When participants were asked about their confidence in their knowledge to integrate Aboriginal content into the general classroom (as a result of the course), 55% of participants feel confident in their ability. In comparison, 19% of participants do not feel confident in their knowledge to integrate Indigenous content into the general classroom. 17% of participants are neither confident nor not confident in their knowledge to address Aboriginal content in the general classroom.

Table 3

Time 2: Pre-Service Teachers (excluding ATEP students) Post- Course Knowledge of Indigenous Content; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I have more knowledge on Aboriginal perspectives and how to support Aboriginal students than I previous had as a result of this course.	2 (0.02%)	0 (0%)	3 (0.03%)	49 (45%)	56 (51%)
I feel confident in my knowledge to integrate Aboriginal content into the general classroom	4 (0.04%)	21 (19%)	20 (18%)	61 (55%)	4 (0.04%)

Attitudes. Frequency calculations were conducted to examine pre-service teachers (excluding ATEP students) attitudes towards the course and Indigenous education, post-course instruction. Results are presented in Table 4. 85% of participants believe their attitudes were significantly changed (positively) as a result of the course. Two participants (0.02%) believe that their attitudes were not significantly changed, as a result of the course. 13% of participants neither agreed that their attitudes had changed nor disagreed that their attitudes had not changed from the course. When participants were questioned about their attitudes toward course structure, 80% of participants believe that the course length was not enough time to adequately prepare them to teach Aboriginal content in the general classroom. In comparison, 10% of participants

believe that the course length was enough time to prepare them to teach Indigenous content in the general classroom.

Table 4

Time 2: Pre-Service Teachers (excluding ATEP students) Post- Course Attitudes towards PROF:502; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I believe that my attitudes towards Aboriginal education were positively significantly changed over the duration of the course	0 (0%)	2 (0.02%)	14 (13%)	53 (48%)	41 (37%)
I believe that the course length was enough time to prepare me to teach Aboriginal content in the general classroom	53 (48%)	35 (32%)	11 (0.1%)	9 (0.08%)	2 (0.02%)

Changes Across Time 1 and Time 2

Significant changes. The next stage of data analysis focused on examining whether participants' knowledge and preparedness to address Indigenous content had changed from their initial Bachelor of Education program work (pre-course) to post- Introduction to Aboriginal

studies for Teachers course work. To examine the magnitude of differences for any significant change, Cohen’s d was calculated. The magnitude of difference was interpreted through 3 value ranges: small was greater than .20, medium was greater than .50, and large was greater than .80 and above (Cohen, 1988). Results are presented in Table 5.

Table 5
Changes from Time 1 to Time 2 in Pre-Service Teachers’ Knowledge (excluding ATEP students)

Question	Time 1 (M/SD)	Time 2 (M/SD)	Cohen’s d
I feel prepared/confident to address Indigenous content in the general classroom	2.26 (1.08)	3.35 (0.94)	1.07*
I have knowledge on Aboriginal perspectives and how support Aboriginal students	2.67 (1.05)	4.42 (0.722)	1.94*

*= significant difference found

Effect size. Both knowledge questions showed a significant difference over time for pre-service teachers (excluding ATEP). In the knowledge section, the question “I feel prepared/confident to address Indigenous content in the general classroom” had a large effect size of $d = 1.07$ showing an increase in score between Time 1 ($M = 2.26$, $SD = 1.08$) and Time 2 ($M = 3.35$, $SD = 0.94$). Additionally, the knowledge question, “I have knowledge on Aboriginal perspectives and how support Aboriginal students” also had a large effect size of $d=1.94$. This showed an extreme increase in score between Time 1 ($M = 2.67$, $SD = 1.05$) and Time 2 ($M = 4.42$, $SD = 0.72$). Unfortunately, effect size for the attitude section could not be

calculated as the same questions were not asked at both Time 1 and Time 2 of the survey.

Aboriginal Teacher Education Program Students

Since Aboriginal Teacher Education Program (ATEP) students have the potential to enter the course with increased interest and more knowledge on Indigenous education than mainstream teacher education students, ATEP students were separated from mainstream teacher education students in this study to avoid skewed data.

Time 1

Knowledge. Frequency calculations were conducted to examine Aboriginal Teacher Education Program (ATEP) students' pre- course knowledge of Indigenous content. Results are presented in Table 6. 71% of participants believe that they are prepared to address Indigenous content in the general classroom based on their current knowledge. 29% of participants do not feel prepared to address Indigenous content in the general classroom. Participants were asked if they learned about Indigenous perspectives and how to support Indigenous students in their other teacher education courses. 58% of participants said they did not learn about Indigenous perspectives and how to support Indigenous students in their other education courses. 43% of participants indicated that they had.

Attitudes. Frequency calculations were conducted to examine ATEP student's attitudes towards Indigenous education, specifically, their own attitudes towards learning about Indigenous perspectives. Results are presented in Table 7. 100% of participants enjoy learning about Indigenous issues and histories. 86% of these participants indicated that they strongly enjoy learning about Indigenous issues and histories. Similarly, all participants (100%) believe that it is important to take a course on Aboriginal education. 86% strongly believe that it is important to take a course on Aboriginal education. When asked if participants wanted to be

taking a course on the Introduction to Aboriginal studies, 86% of participants said they did want to be taking a course on Introduction to Aboriginal studies. 14% (one participant) neither wanted nor did not want to be taking a course on Introduction to Aboriginal Studies.

Table 6

Time 1: ATEP Pre-Service Teachers Pre- Course Knowledge of Indigenous Content; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Based on my current knowledge (of what I learned in education system), I feel prepared to address Indigenous content in the general classroom	1 (14%)	1 (14%)	0	1 (14%)	4 (57%)
I learned about Indigenous perspectives and how support Indigenous students in my other teaching education courses	2 (29%)	2 (29%)	0 (0%)	2 (29%)	1 (14%)

Table 7

Time 1: ATEP Pre-Service Teachers Pre- Course Attitudes towards Indigenous education; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I like learning about Aboriginal issues and histories	0 (0%)	0 (0%)	0 (0%)	1 (14%)	6 (86%)
I want to be here taking a course on an Introduction to Aboriginal studies	0 (0%)	0 (0%)	1 (14%)	2 (29%)	4 (57%)
I think it's important to take a course on Aboriginal education	0 (0%)	0 (0%)	0 (0%)	1 (14%)	6 (86%)

Time 2

Questions pertaining to knowledge and attitudes were distributed to participants on the last day of the course (Introduction to Aboriginal Studies for Teachers). Similar to Time 1 data, results are presented in order of knowledge and attitudes.

Knowledge. Frequency calculations were conducted to examine Aboriginal Teacher Education program participants' post-course knowledge of Indigenous content. Results are presented in Table 8. 72% of participants said that they have gained more knowledge on Indigenous perspectives and how to support Indigenous students than they previous had, as a result of the course. 14% (one participant) said that they strongly did not gain more knowledge

on Aboriginal perspectives and how to support Aboriginal students from this course and 14% were neutral. Regarding confidence in their Indigenous knowledge, 86% of participants feel confident to integrate Aboriginal content into the general classroom, as a result of the course and 14% are neutral.

Table 8

Time 2: ATEP Pre-Service Teachers Post- Course Knowledge of Indigenous Content; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I have more knowledge on Aboriginal perspectives and how to support Aboriginal students than I previous had as a result of this course.	1 (14%)	0 (0%)	1 (14%)	3 (43%)	2 (29%)
I feel confident in my knowledge to integrate Aboriginal content into the general classroom	0 (0%)	0 (0%)	1 (14%)	2 (29%)	4 (57%)

Attitudes. Frequency calculations were conducted to examine ATEP participants’ attitudes towards the course and Indigenous education, post-course instruction. Results are presented in Table 9. 86% of participants believe that their attitudes towards Indigenous education were significantly changed over the duration of the course. 14% of participants neither

agreed nor disagreed that their attitudes had changed. When asked if the course length was enough time to prepare participants to teach Indigenous content in the general classroom, 100% of participants strongly believe that it was not.

Table 9

Time 2: ATEP Pre-Service Teachers' Post- Course Attitudes towards PROF:502; Frequencies and Percentages of Responses

Question	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
I believe that my attitudes towards Aboriginal education were positively significantly changed over the duration of the course	0 (0%)	0 (0%)	1 (14%)	4 (57%)	2 (29%)
I believe that the course length was enough time to prepare me to teach Aboriginal content in the general classroom	7 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Changes Across Time 1 and Time 2

Significant changes. The next stage of data analysis focused on examining whether participants' knowledge and preparedness to address Indigenous content had changed from their initial Bachelor of Education program work (pre-course) to post- Introduction to Aboriginal

studies for Teachers course work. To examine the magnitude of differences for any significant change, Cohen’s d was calculated. The magnitude of difference was interpreted through 3 value ranges: small was greater than .20, medium was greater than .50, and large was greater than .80 and above (Cohen, 1988). Results are presented in Table 10.

Table 10

Changes from Time 1 to Time 2 in ATEP Pre-Service Teachers’ Knowledge

Question	Time 1 (M/SD)	Time 2 (M/SD)	Cohen’s d
I feel prepared/confident to address Indigenous content in the general classroom	3.86 (1.67)	4.71 (0.48)	0.69*
I have knowledge on Aboriginal perspectives and how support Aboriginal students	2.71 (1.60)	3.71 (1.38)	0.66*

*=Significant difference found

Effect size. Both knowledge questions showed a midsize increase from Time 1 to Time 2 among ATEP pre-service teacher knowledge. The question “I feel prepared/confident to address Indigenous content in the general classroom” had a medium effect size of of $d = 0.69$. This showed a moderate increase in score between Time 1 ($M = 3.86$, $SD = 1.67$) and Time 2 ($M = 4.71$, $SD = 0.48$). Additionally, the knowledge question, “I have knowledge on Aboriginal perspectives and how support Aboriginal students” also had a medium effect size of $d=0.66$. This showed an medium score between Time 1 ($M = 2.71$, $SD = 1.60$) and Time 2 ($M = 3.71$, $SD = 1.38$). Unfortunately, effect size for the attitude section could not be calculated as the same

questions were not asked at both Time 1 and Time 2 of the survey.

Interview Results

Results of the individual interviews will be divided into three sample groups; Mainstream Teacher Education Program students, Aboriginal Teacher Education Program (ATEP) students, and the course instructor. The results are presented in two sections: knowledge and attitudes for each sample group.

Mainstream Teacher Education Program students

Knowledge

Participants' articulation of knowledge can be represented through two major themes: minimal educational exposure to Indigenous content as a student, and absence of integration of Indigenous content in professional learning experiences. The results for each of these themes are presented in this order.

Minimal educational exposure to Indigenous content as a student. The first major theme was created through three different axial codes: lack of Indigenous education, Indigenous education not meaningfully taught, and Indigenous content presented through Eurocentric perspectives. The following sections break down the themes and patterns that emerged in the data that were categorized under minimal educational exposure to Indigenous content knowledge as a student.

Lack of Indigenous education. Eleven out of the fourteen individuals who were interviewed identified a lack of Indigenous content knowledge in their own experiences as a student in the education system. One participant stated, "I had basically no knowledge in this kind of stuff [Indigenous education] because we didn't learn it in high school or elementary school." Another participant indicated, "prior to coming here [Faculty of Education], I pretty

much had zero knowledge [of Indigenous education], very minimal.” Those participants who had knowledge of Indigenous content indicated that it was obtained from their own interest and exploration into the topic rather than from the education system, itself. For instance, a participant stated, “I did an exchange in France and when I came back I wanted to learn about Indigenous peoples, I want to learn more about my country. Because what does it mean to be Canadian? I didn’t know. It’s been through my own learning that I have started to learn it [Indigenous knowledge].”

Indigenous education not meaningfully taught. Nine out of the fourteen participants who were interviewed indicated that when Indigenous content was presented to them as students, it was rarely presented in a meaningful way. For instance, one participant stated, “I don’t have anything that jumps to mind as really powering education. It wasn’t meaningful.” Participants believed that education related to Indigenous education was surface level learning. For example, a participant stated, “I don’t know if this really counts, but I know in elementary school I went to pioneer village.” Another participant added, “I’m pretty sure I did some units on Aboriginal peoples in elementary school but I think they mostly focused on history you know like building dioramas of teepees and stuff.” One participant commented that Indigenous culture is often pushed into schools with no background or historical context. “During the graduation ceremony, they would have a pow wow group doing some singing and stuff like that but no real learning.”

Indigenous content presented through Eurocentric perspectives. Another common theme among participants was Indigenous content being taught through Eurocentric perspectives. One participant revealed, “I learned Aboriginal history through contact with the Europeans and that was basically it.” Another participant stated, “We learned more about Jacques Cartier as opposed to studying First Nation peoples. I didn’t learn very much, it focused a lot on Western

and European perspectives.” A participant also acknowledged the presence of European literature as opposed to Indigenous works. “In terms of English, I didn’t have contact with Indigenous authors or works.”

Absence of Indigenous content in professional learning experiences. The second major theme was an absence of Indigenous content in professional learning experiences. When participants were asked about their knowledge of Indigenous content, they were also asked about their experience in the Bachelor of Education program. Professional development was represented through two axial codes: inadequate professional development and a lack of professional training.

Inadequate professional development. All participants had matters of the program to discuss when it came to their experiences in the bachelor of education program and the knowledge they received on Indigenous education from the program. Eight out of the fourteen participants discussed a lack of integration of Indigenous knowledge in their other bachelor of education courses. One participant stated, “I think we talked about it [Indigenous education] in [one of our professional courses], there was something in the first summer, it might have come up in the year but I can’t remember what course but it was just one day dedicated to the topic about Indigenous People.” Another participant said, “I feel like in my other curriculum courses, we didn’t really talk about how to integrate really any culture other than the dominant one, we didn’t really talk about that at all.” Some participants revealed that Indigenous perspectives were only brought up if students were the ones to acknowledge them first. “If we were learning something and it seemed like it was neglecting Indigenous Education, [student] would be the first person to raise their hand and say, “but what about the Indigenous perspective”. This would force the teacher to discuss it.” Another participant added, “In several of in the courses,

[student] was responsible for integrating Indigenous content into the course. Not to speak poorly of any of the faculty here”. Other participants also commented on professor preparation to address Indigenous education in the classroom. “Some professors were really prepared for it and more eager to embrace that perspective and considered it. Whereas others seemed like they just wanted to carry on with the lesson as planned and not address it. For instance, they would say, “Yes, good point. Totally valid.” then move on, when it could have been an opportunity to stop and have some dialogue.”

A lack of professional training. Prof 502: Introduction to Aboriginal studies was a five-day course (12 hours total) at the end of the bachelor of education program (summer 2). This meant that the students had no more practicum placements following the end of the course. This left a limited to zero opportunity for students apply their new knowledge in the classroom. One participant stated, “I mean without being able to relate any course material to practicum experience, it’s very hard to say you are prepared to teach it [Indigenous content].” Another participant indicated, “There are still some things [Indigenous content] that I’m not sure how I would apply. It would have been nice to have some practice applying them.”

Attitudes

Participants’ attitudes of and towards Indigenous education are represented through three major themes: attitudes towards learning, inadequately preparation to implement Indigenous content into the classroom and insight to necessary changes to the B.Ed. program.

Attitudes towards learning about Indigenous education. The first major theme that emerged was attitudes towards learning about Indigenous education, which was created through two axial codes: pre-perceptions surround indigenous education and a desire to learn about Indigenous content.

Pre-perceptions surrounding Indigenous education. Participants discussed their attitudes towards Indigenous education and many participants acknowledged that they had pre-perceptions towards Indigenous culture and peoples at the beginning of the course. One participant revealed, “My perspective of Indigenous peoples was that they all live in the north, they wear hide clothing, they live in igloos, like very stereotyped ideas. And I don’t remember ever having the point driven home to me that there are Indigenous athletes, teachers and scientists. It’s important that students know that Indigenous peoples are not just living on reserves and we don’t have to think of them. They are everywhere and they are important, their skills are important, their experiences are important. We have to get away from this idea that Indigenous cultures are from the past.” Another participant added, “There is a lot of assumptions and stereotyping that [Indigenous peoples] live in teepees and that they celebrate in different ways.” A few participants believed that schools only needed to include Indigenous education if the school was located near a reserve. “I had no exposure and that’s largely in part due to the fact that there was no kind of representation among the teachers and likewise, the student body I was surrounded by. I can’t think of any person who came from an obvious Indigenous background.” Another participant added, “I grew up close to Brantford, being closer to the reserve maybe they had more obligation to talk about more than other schools did.”

A desire to learn about Indigenous content. Aside from participants admitting to having pre-perceptions surrounding Indigenous education, thirteen of the fourteen participants interviewed acknowledged a strong desire to learn about Indigenous content. These participants believed that Indigenous education was both interesting and important to learn. One participants claimed, “I think for me it’s one of the most important things and one of the things I was most interested in learning about this year in the Queen’s program.” Another participant stated, “I was

very excited for this course, it was THE course I was looking forward to all year. I didn't get content from other courses so I was really looking forward to narrowing in on this [Indigenous education]." Aside from being interested in the course, many participants also believed that it was an important course to take as well. "I knew it was [Indigenous education] important, I was looking forward to taking it because I had gaps that I wanted filled." An additional participant stated, "I knew it was something that needed to be taught and you know I had no idea what needed to be taught like what aspects about Indigenous cultures that we needed to know."

Unprepared to implement Indigenous content into the classroom. The second major theme for attitudes is the inadequate level of teacher candidates' preparation to implement Indigenous content into the general classroom. This theme was represented through two axial codes: feelings of unpreparedness and necessary program changes.

Feelings of unpreparedness. Many participants who were interviewed indicated that they feel unprepared to address Indigenous content in the classroom despite taking the course. One participant expressed, "I feel like I have more of a leg to stand on now. Now, I'm able to talk of my experiences and teachings that I have heard straight from the horse's mouth and I can refer to names and where I learned it. But, I still have a lot of concerns." A further participant commented, "It [the course] made it better but I don't feel prepared. It piqued my interest but I still have a lot more work to do." When asked if the course prepared participants to address Indigenous perspectives in the classroom, one participant indicated, "No, and I think. I think that there are two things that need to happen, which make the course complicated. One is an increase of Indigenous knowledge for people. You must learn more about the history, you must learn more about contemporary experiences, you must learn a lot of the basics because it hasn't been covered for so many people. It requires knowledge about Indigenous issues and the other is

practice implementing it. How do you expect adults to teach children when they don't know the content knowledge themselves?"

Necessary program changes. All participants expressed their concerns regarding the structure of the course. The first issue was the placement of the course. Prof 502: Introduction to Aboriginal studies was a course that participants had to take at the very end of their program. One participant summed up the course placement as, "oh by the way, we have to also teach you this. Which was my opinion of the course. Its placement was like, oh we have to add this one." An additional participant stated, "what first comes to mind is, isn't it interesting that a lot these courses that we would all benefit from come at the very end of our program and in a short window. I don't understand the configuration of it. But I think it's interesting that this course is at the end and is only 6 days, I think that's sad." Participants also indicated that the course placement resulted in a lack concentration from teacher candidates. "At this point in the program [late June] a lot of us are feeling very burnt out. People are just totally checked out." An additional participant indicated that students are experiencing severe "burnout" at this point in the program. "Unfortunately, a lot of us have been in school since last September and started in May and have just gone through without a break, so I think that people are having severe burnout by now and that the topic isn't being taken as seriously as it needs to be. So that active listening piece may be missing." Many participants recommended suggestions for a better placement of the course. "It needs to be moved, I think it would be much better suited in the fall, when people are eager to learn better." A further participant expressed, "I also felt a bit of disappointment that it didn't come earlier in the program because I think it's a bit of damage to teachers and students to not have that learning and have a chance to practice it on practicum and to just think about the classroom and how to incorporate those perspectives."

Another issue that was brought up by all participants was the length of the course. Participants believed that the course was too short of time length to benefit from the course content. A participant argued, “We spent 18-days in the English language learners course and I felt that 90% of that course was everything I have already learned in the program already, it was really repetitive. We had 6 days for this course, which was not enough.” Some participants believed that the length of the course was a disservice to them. For instance, a participant stated, “It was much too short, way too fast. It almost did a disservice, because it increased apprehension sort of for me.” Another participant indicated that course content did not stick because it was so fast. “The only disappointment was how short it was, I felt like it was a whirlwind. I think it was much too short to really prepare me. Even now, I don’t know how long it’s been since I’ve been in this course, I guess just over a month but a lot of it [course content] is so fuzzy because it was so fast and so quick.” Other participants believed that topics were too rushed. “I wish it was longer. I just feel like there’s so much more you can cover and I feel like if we had more time, we would have learned more, it’s a topic that deserves more in-depth and class time.”

Insight to necessary changes to the B.Ed. program. The final major theme under the attitude category is insight to necessary changes to the B.Ed. program. This theme represents participants’ attitudes towards the future development of Prof 502: Introduction to Aboriginal education, which participants believed the course should be at the beginning of their program and should be a curriculum course.

Attitude towards course improvement. Participants believed that the course should be placed at the beginning of the year and should be a curriculum course. One participant reasoned, “If we really want to move forward and normalize FNMI perspectives then we have to normalize

it.” A participant expressed the opinion, “A lot of my colleagues have talked about that [course placement], it should have been offered at the beginning of the program and it should have been offered as a full year course, because I did absorb some information but I think if it was at the beginning and a full year course, we could absorb and process these things that are really important.” Another participant stated, “I don’t think that the Aboriginal course should have just been a summer course, it would be nice to have it as a curriculum course.” In terms of having the course placed at the beginning of the year, a participant indicated, “I think having the course earlier in the program would be better and it would set the stage for more of that integration as you go. So, you know if you are doing a practicum placement you could think of that kind of integration whereas the course happened after all the placements had finished.” Some participants voiced that it was “mind-blowing” that concurrent education students did not have to take this course, which was another reasoning for placing it at the beginning and making it a full year curriculum course. “It’s mind blowing that the concurrent education students have left without having to take this course. It’s interesting that they can graduate without this knowledge under their belt, I don’t get it. I think it shows the bias, it’s not okay to graduate without a science course but you can graduate without an Aboriginal course, why?”

Participants also expressed that the course would be better suited as a graded course. “It’s a pass/fail course. I’m wondering if they would consider making it a graded course because that might motivate people differently to take it more seriously. Because I think people’s perceptions on passed/failed course, is that they take it a little bit for granted.” An additional participant believed that teacher candidates did not take the course seriously because it was a pass/fail course. “I felt like a lot of people saw the pass/fail aspect of the grading as not having to take the content that seriously.”

Aboriginal Teacher Education Program (ATEP) Students

Knowledge

ATEP student knowledge can be represented through two major themes: exposure to Indigenous knowledge outside public classroom walls and importance of ATEP involvement in course content delivery.

Exposure to Indigenous knowledge outside public classroom walls. The first major theme was created through two axial codes: knowledge gained by having an Indigenous heritage background and self-exploration/interest in Indigenous education. The following sections break down the themes and patterns that emerged in the data that were categorized under exposure to Indigenous knowledge outside classroom walls.

Knowledge gained by having an Indigenous heritage background. Three out of the four participants interviewed acknowledged having an Indigenous heritage background. Participants who identified as being Indigenous indicated that their knowledge stemmed outside the classroom. “It was through my experiences in pow wow singing that I saw the value and the knowledge that was held in culture ways of seeing and being and doing.” Another participant added, “my mom actually has her status card, she is Métis. She has recently gotten in touch with her roots, so that’s how I have recently gained more knowledge.” One participant indicated that through attending an on-reserve elementary school, they were further exposed to their language and culture. However, participants who attended publicly funded schools indicated a lack of knowledge and pre-perceptions from teachers around Indigenous students. “Limited knowledge among teachers is definitely one of the underlying issues. I also think there was also a lot of pre-perceptions around the achievement of Indigenous students and I think there was also a lot of bias because they [teachers] had opinions that were influenced not by their own observations but

through the things they saw around them, everything was bad and negative.” Another participant spoke of the lack of knowledge gained in the public-school system on Indigenous education. “I don’t have a strong memory of learning much in the public-school system. Nothing really stood out to me.”

Self-exploration/interest in Indigenous education. All participants indicated that self-exploration and interest helped build their knowledge base around Indigenous education. One participant stated, “my knowledge has stemmed within the last 2 or 3 years through my own research and through choosing certain courses, such as joining ATEP.” In addition, two participants disclosed their choice to complete their undergraduate degree in Indigenous studies to expand their knowledge in the field of Indigenous education.

Importance of ATEP involvement in course delivery of knowledge. The second major theme was created through two axial codes: consolidation of information being presented in class and the importance of pre-service teacher understanding of Indigenous education.

Consolidation of information being presented in class. All participants acknowledged the importance of giving ATEP students a leadership role in the course. “I was really happy with the way that the professor let ATEP students be involved in the course and to share our own experiences with the content.” One participant expressed, “we were [ATEP students] given the opportunity to scaffold the knowledge that was being applied but it also allowed us to really consolidate information and knowledge experienced in our own lives.” Another participant stated that, “It is important to have Indigenous students contributing knowledge on Indigenous issues and experiences.”

Importance of pre-service teacher understanding of Indigenous education. Participants were surprised at the lack of Indigenous knowledge among their peers. One participant stated, “I

realized taking this course that the bar of knowledge is a lot lower than I expected.” Another participant acknowledged, “there were definitely some students who had predispositions on Indigenous education due to a lack of knowledge.” When asked on the importance of pre-service teacher understanding of Indigenous education, a participant expressed, “pre-service teachers need to have the basic Canadian knowledge on Indigenous peoples. I think knowing that context can help them see the contexts of themselves as a teacher within a colonial experience, it helps them see how westernized our schools are, if you understand the history.” When asked if there was an area of Indigenous content that they wanted pre-service teachers leaving with, all participants had various opinions. For instance, one participant believed that pre-service teachers should be aware and understand the effects of intergenerational trauma. Another participant indicated that, “It’s important for pre-service teachers to understand that that Indigenous education and knowledge looks very different internationally and even between reserves, who are of the same nation. I want them to know it is diverse.” A third participant added that it is important that pre-service teachers acknowledge stereotypes. “I look 100% white, I look like I have no Indigenous background but I do. Someone could make an offensive comment blindly, that’s something teachers should be aware of, indigeneity as a race.”

Attitudes

ATEP student attitudes can be represented through one major theme: attitudes towards taking the course and insight to course changes.

Attitudes towards course. The first major theme under the attitudes section was created through two axial codes: attitudes towards taking the course and insight to course changes. The following sections break down the themes and patterns that emerged in the data that were categorized under attitudes towards course.

Attitudes towards taking the course. Most participants had positive attitudes towards being required to take Prof 502: Introduction to Aboriginal Studies for Teachers, despite having learned about Indigenous education throughout their whole program. “I felt as an ATEP student that the course was partly repetitive but I also was happy that the course existed and for that reason I wanted to participate.” Another participant believed that the course consolidated personal knowledge. “I will say for myself, it is not anything new that I have learned or have not been exposed to in my own experiences but it consolidated my own knowledge that I brought into the course with me.” Other participants expressed disappointment by the course. “The course felt more so like an introductory, like just raising off the surface. Prof 502 is designed for people who haven’t been exposed to Aboriginal culture or ways of knowing or for people who aren’t Aboriginal. I felt that was really unfortunate for me because I didn’t feel like I gained any new tools.” Another participant commented, “I didn’t take the course seriously because I was like I’m in ATEP, why am I here in this introductory course?”

Insight to course changes. All participants expressed changes needed to be made to the design of Prof 502 are necessary. The first issue had to do with the length of the course. “You can’t compress or summarize well over 500 years of history into 12-hours of instructional time, the only way to improve the course is to make it longer.” One participant made a comparison to the prairies. “In the prairies, they have a mandatory course that is equivalent to our ATEP program, it is a 70-hour course that is mandatory for all teachers to take and this course was only 12.” Participants claimed that short length of the course was insensitive to certain topics. “It is difficult to deliver some of that content in that time because it was almost insensitive to that topic [residential schools] to touch on it in one class. I don’t think it was the most beneficial way of introducing teacher candidates to these topics.” Another participant added, “I think a simple

formula would be to double the time of the course to make it more beneficial.” Some participants believed the course would be better suited as a full semester course. “I don’t think the Aboriginal course should have just been a summer course either, it would be nice to have it expand the whole fall and winter semester on top of it being talked about in our curriculum courses.” A second issue brought up by participants was the pass/fail element of the course. “I think a lot of people took advantage of the pass/fail aspect of the course. This was really hard since the course was about my culture, and people not taking my culture seriously was hard to deal with.” Another participant added, “It was a pass or fail course at the end of our program. Nobody took that course seriously. I didn’t even take the course seriously.”

Course Instructor

Knowledge

The next section will review interview results of the course instructor of Prof 502: Introduction to Aboriginal Studies for Teachers. The course instructor perception of knowledge is demonstrated through three major themes: limited Indigenous education knowledge among pre-service teachers, lack of learning opportunities for pre-service teachers in Indigenous education and course design contribution to lack of knowledge among pre-service teachers.

Limited Indigenous education knowledge among pre-service teachers. The first major theme that emerged was limited Indigenous education knowledge among pre-service teachers, which was created through two axial codes: lack of previous exposure to Indigenous education and awakened body of knowledge among pre-service teachers.

Limited Indigenous education knowledge among pre-service teachers. The course instructor was surprised at the lack of knowledge students processed on Indigenous education. “I was amazed at how many students said that they have never learned any of this [Indigenous

content] before.” Specifically, the instructor commented on the number of students who did not know what residential schools were prior to taking the course. “It still astonishes me that people can say, what were residential schools?” The instructor stated that the course brought issues to student’s attention but it certainly wasn’t enough learning. “What I can gather from student feedback is that taking the course was enough for students to become aware of what they didn’t know.” The instructor added, “The fact that these learnings have now been brought to their attention, it may be enough for students to further investigate these issues but it certainly isn’t enough learning.” The instructor believes that pre-service teachers still need more knowledge in this area. “The course was absolutely not enough time for teacher candidates to effectively learn Indigenous content and apply it in the classroom.”

Awakened body of knowledge among pre-service teachers. The course instructor believed that the course was able to reveal a whole new body of knowledge among students. “For many students, they discovered that there was a whole body of knowledge, this whole part of education, that they didn’t know anything about or knew very little about.” The instructor stated that at the beginning of the course the majority of students were nonchalant about taking the course. However, following the completion of the course, the instructor received many personal emails. “Student feedback was that many students had actually changed their minds about whether this course was valuable or not. The emails from the students stated that they really enjoyed the course and thank you very much.”

Lack of learning opportunities for pre-service teachers. The second major theme that emerged was lack of learning opportunities for pre-service teachers in Indigenous Education, which was created through two axial codes: lack of practical experience for application of knowledge and more integration for knowledge among faculty.

Lack of practical experience for application of knowledge. The course instructor expressed concerns on the lack of professional opportunities available to students (excluding ATEP students) to apply Indigenous knowledge. “This course came after all the student had done their practicum placements and so even if they did want to include this knowledge [Indigenous education] and try to understand how to bring it into a classroom or perhaps try to work with an Indigenous lead teacher, that opportunity had passed.”

More integration for knowledge among faculty. The course instructor expressed a need for more integration of Indigenous content in other courses in the faculty. “We could have in-service days for university faculty where those teaching other curriculum courses could learn about how to incorporate the knowledge in other subjects.” The instructor believes that more collaboration could be beneficial. “I am the representative on [board] and I am amazed at the amount of work and knowledge that I have gained on [Indigenous curriculum].” The course instructor added, “I believe there are a whole a lot of faculty who acknowledge the importance [of Indigenous education], who want to incorporate it but just need to know how to do it and how to be supported.” Indigenous and intercultural knowledge workshops have since been implemented, however, the impacts of the workshops are unknown.

Course design contribution to limited Indigenous knowledge among pre-service teachers. The final theme that emerged was course design contribution to limited Indigenous knowledge among pre-service teachers, which was created through one axial code: insight to necessary course changes.

Insight to necessary course changes. The first concern that the course instructor expressed was the length of the course. “The course was nowhere long enough for teacher candidates to effectively learn Indigenous education. It should be at least a semester long.” The

second concern was with the placement of the course. “I suppose the positives of the course being in June are that the strawberries are out and we could be outside with great weather. From an academic stand point, however, the placement is horrible.” The course instructor added that, “students are tired, they are maxed out, it’s the end of the semester and the end of the program.” The instructor also believes that in order to improve elements of the course there needs to be financial ability and support from wider university community. “I do not want to come across as ungrateful for the money that does exist but there needs to be heavier financial investment but this hinges on the course being longer.” For instance, the course instructor states that, “to really have this course the way it needs to be, there needs to be time to actually go and sit with Indigenous peoples, bring in elders and knowledge keepers, and to do this there needs to be a fairly substantial financial investment.”

Attitudes

The course instructor’s attitudes towards the course are represented through two major themes: attitudes towards teaching the course and perception of student attitudes towards the course.

Attitudes toward teaching the course. The first major theme that emerged was the instructor’s attitudes toward teaching the course, which was created through the axial code: limitation in course content teaching.

Limitation in course content teaching. The professor expressed overwhelming feelings towards teaching the course. “My initial attitude was I was terrified. Even after all these years of teaching it, it terrified me to think of having to put all that content into a few days/hours and trying to sort through what was really important and what has to be taught and what didn’t was really overwhelming.” The instructor believed selecting the course content was a little like

“Sophie’s choice” meaning that the instructor had to choose between important topics while inevitably leaving one of the topics out.

Perception of student attitudes towards course. The second major theme that emerged was the instructor’s perception of student attitudes towards the course, which was created through the axial code: increased student engagement over duration of course.

Increased student engagement over duration of course. The course instructor stated that student attitudes towards the course could not be generalized. Instead, the instructor claimed that there were students in three different pockets. “There were students who let me know they were only doing it [the course] because it was a requirement and had no interest in it. There were students who told me the very first time we met that they were really looking forward to the course because they thought they would learn something they didn’t already know. Then there were a lot of people just in the middle, it was the end of the semester, it was the end of their time, it was something being imposed upon them and they were just nonchalant ready to do it.” The instructor stated that the majority of students were in the middle. “I think the students who were really resistant about taking it, there was a fairly small group there. Similarly, there as a fairly small group of students were really excited and really glad to be taking the course. Then there was a whole group of students in the middle who were like “meh”.” The instructor stated however that student attitudes changed a fair amount over the duration of the course. “I was actually amazed, moved and surprised by the number of personal emails I received at the end of the course and students saying that they hadn’t felt terribly interested in the course before it started but they really enjoyed it and thank you very much.” The course instructor stated they got a handful of these personal emails. “I mean out of 180 students, I think I got more than a dozen of those email, which surprised me.” The instructor added that over the duration of the course

student's attitudes had changed. "Many students had actually changed their minds about whether the course was valuable or not."

Chapter 5

Discussion and Conclusion

The purpose of this study was to examine pre-service teachers' knowledge of Indigenous education and their attitudes towards including Indigenous perspectives in the general classroom, prior to and after completing a mandatory *Introduction to Aboriginal Studies for Teachers* course. The purpose of the research was addressed by the following two research questions: 1) What baseline knowledge of and attitudes toward Indigenous curriculum integration are pre-service teachers entering and leaving the Faculty of Education? 2) Does coursework adequately prepare pre-service teachers to integrate confidently Indigenous content into the general classroom? This chapter will discuss the results presented in the previous chapter more profoundly. Following this discussion, the limitations of this study are considered. The researcher will conclude by providing recommendations for *Prof 502: Introduction to Aboriginal Studies*.

Mainstream Teacher Education Program Students

Frequency calculations from survey data reported that over half of teacher candidates (63%) entered the course unprepared to address Indigenous content in the general classroom. This finding is consistent to the work of many scholars (Kanu, 2005; Blood, 2010; Deer, 2013; Nardozi, 2016). Data also revealed that over the 15-months that participants had been in the Bachelor of Education program they had limited to no exposure to Indigenous curriculum integration or how to support Indigenous students in the general classroom. The post-course data showed that 96% of participants learned more about Indigenous perspectives in a 12-hour course than in any of their prior learnings, this including elementary, secondary and post-secondary education. When Cohen's d was used to assess changes from pre-course to post-course

knowledge, large effect size differences were found for level of preparedness to address Indigenous content into the general classroom ($d= 1.07$) and knowledge of how to support Indigenous students ($d=1.94$). While the data showed significant knowledge gain, it was evident through interviews with participants that the strength of Indigenous knowledge remains low. In fact, participants articulated “surface level” knowledge by indicating that they would incorporate aspects of Indigenous culture, such as dreamcatchers, into their classrooms. This finding was consistent to Deer’s (2013) study that found that when it came to pre-service teacher knowledge of and experiences with Indigenous culture, it usually focuses on artifacts or aspect of content that do not adequately cite Indigenous culture. During the interviews, many participants indicated that they still feel unprepared to address Indigenous content in the classroom despite taking the course. Participants expressed their unpreparedness to a lack of integration in other education course curriculums, lack of professional opportunities to apply Indigenous education, poor placement of course (i.e. at the very end of their program) and a limited length for course instruction (6 days).

Participant attitude results differed from previous studies on teacher candidates’ attitudes. Contrary to the findings of Kerr (2014) and Aveling (2006) where teacher candidates came across as being uninterested and resisted the learnings of Indigenous content, this study found large interest in Indigenous education amongst pre-service teachers. Frequency calculations reported that 90% of participants have an interest in both learning about Indigenous issues and histories as well as an interest in taking a course on Indigenous studies. Participants (97%) also believed that an Indigenous studies course was an important course for teacher candidates to take.

Aboriginal Teacher Education Program Students

As Kerr (2014) points out, most Indigenous teacher candidates enroll in a separate Bachelor of Education program created for Indigenous students and as a result there are less Indigenous students voices in mainstream Indigenous studies courses. This study was unique as *Prof 502: Introduction to Aboriginal Studies for Teachers* combined both cohorts of students. Frequency calculations for ATEP student attitudes showed that 86% participants wanted to be taking the *Introduction to Aboriginal Studies for Teachers* course. ATEP students revealed in the interview phase of the research that they enjoyed being in the course to consolidate information and be able to speak on personal experiences in order to properly inform mainstream teacher candidates.

Knowledge frequency calculations showed that unlike pre-service teachers in the mainstream program, 71% of ATEP participants are prepared to address Indigenous content in the general classroom at the beginning of the course. This finding is quite low given the amount of extra training ATEP students acquire. Perhaps, ATEP students are learning enough to know how ignorant one is. When Cohen's d was used to assess changes from pre-course to post-course knowledge, medium effect size changes were found for "I feel prepared to address Indigenous content in the general classroom" ($d=0.69$) and "I have knowledge on Indigenous perspectives and how to support Indigenous students" ($d= 0.66$). These medium effect sizes differed from the large effect sizes found among mainstream teacher candidates. These findings suggest that ATEP students are entering and leaving the faculty of education with appropriate knowledge to confidently integrate Indigenous knowledge and perspectives into the general classroom. However, this preparation is attributed to previous education of Indigenous content as well as ATEP course instruction rather than from the *Prof 502: Introduction to Aboriginal studies* course

itself.

Course Instructor

The most significant insight from the course instructor was on the perception of students attitude towards Indigenous education. The instructor indicated that over the duration of the course, participant interest in Indigenous education increased. At the end of the course students had changed their minds on the value of the course on their professional development. However, consistent with the findings of Kaomea (2005), the course instructor states that even if teacher candidates recognize the importance of including this material in their future curriculum, they still lack the confidence to enact it. The course instructor believes that pre-service teachers' lack of knowledge is due to a lack professional development opportunities provided to them. As argued by Restoule (2008) professional development opportunities raise teachers' level of knowledge of Aboriginal perspectives and their confidence in including Indigenous content in their classroom teaching. The course instructor also believed that the course placement and length hindered teacher candidate learning. The course instructor insists that in order to improve elements of the course there needs to be financial investment and support from the wider university community.

Limitations

A limitation to the study was that I was a teaching assistant for the course. Although proper measures were taken to avoid a conflict of interest (COI), participant responses may have been influenced due to my role. To avoid bias in my research, survey and interview guides were created and approved through ethics before the start date of the course. In addition, to eliminate conflict of interest (COI), a research assistant (RA) was recruited to distribute the letter of information, the consent forms and the surveys to the students. The course instructor, teaching

assistants and I left the room while the students decided if they were going to sign the consent form and complete the survey. The same process was repeated for the second survey. The RA collected the completed surveys and consent forms and kept them sealed in an envelope in a locked file cabinet until the final grades for the course had been submitted. Once the final marks were given, I was given access to the surveys and was able complete the interview process of the research. A further limitation to the study is that the sample size is small and only reflects this particular year of the course. A longitudinal study would be a good follow-on research project to compare results across years.

Recommendations

The following section outlines recommendations for program and course improvement in the bachelor of education program. These recommendations are based on results from participants:

1. Move the placement of Prof 502: Introduction to Aboriginal Studies for Teachers to the beginning of the program. This would allow students to apply knowledge in practicum placements and would ensure that concurrent education students are also required to take the course;
2. Extend the length of Prof 502: Introduction to Aboriginal Studies for Teachers to at least one semester;
3. Make Prof 502: Introduction to Aboriginal Studies for Teachers a graded course;
4. Include the entire faculty in Indigenous education. Ensure of more integration of Indigenous content in education curriculum courses (i.e. Math, English, Social Science, Science, Art);
5. Increase support from the wider university community for Indigenous education (i.e.

Increased financial investment);

6. Increase Indigenous representation with more Indigenous faculty members; and
7. Develop practicum placement partnerships and opportunities for professional development with Indigenous communities.

Conclusion

The findings of this study suggest that content knowledge may be acting as a barrier for pre-service teachers in obtaining the appropriate knowledge needed to teach and integrate Indigenous content into the general classroom. As found in this study, mainstream pre-service teachers are entering and leaving the Faculty of Education with little knowledge and low confidence to integrate Indigenous perspectives into the classroom. This finding is consistent with Castagno and Brayboy (2008) and Kanu (2005) who found that the majority of teachers lack an awareness and understanding of Indigenous cultures, histories, and political issues. Participants in this study believed that the weakness in their preparation to integrate Indigenous education into the general classroom was due to their teacher education program design. Reconcilable to Deer's (2013) study, the participants in this study who believe they are prepared often focused on material knowledge without deep knowledge. Another key finding to this study was that teacher candidates have a strong interest in learning about Indigenous education and implementing Indigenous education in the classroom but lack the knowledge to do so. This is problematic as Lee and Dallman's (2008) research suggests many preservice teachers enter teacher education programs with their own belief systems developed by their sociocultural backgrounds. That is, without proper knowledge, a teacher's individual knowledge becomes transformed into the classroom's instructional content (Shulman, 1986).

Thankfully, we have the opportunity to make change. I urge the Faculty of Education to take into consideration the recommendations provided for program and course improvement. It is essential that pre-service teachers are graduating the Bachelor of Education program with the appropriate content and instructional knowledge on Indigenous education, as it is the responsibility of the teacher to be equitable to all students.

References

- Assembly of First Nation. (2010). *First Nations control of First Nation Education: It's our vision, it's our future*. Retrieved from https://www.afn.ca/uploads/files/education/3.2010_july_afn_first_nations_control_of_first_nations_education_final_eng.pdf
- Association of Canadian Deans of Education. (2010). Accord on Indigenous Education. https://www.oise.utoronto.ca/aboriginal/UserFiles/File/FoE_document_ACDE_Accord_Indigenous_Education_01-12-10-1.pdf
- Aveling, Nado. (2006). Hacking at our very roots': rearticulating White racial identity within the context of teacher education. *Race Ethnicity and Education*, 9(3), 261-274.
- Barman, J., Y. Hébert and D. McCaskill (1986) "The Legacy of the Past: An Overview." In J. Barman, Y. Hébert and D. McCaskill (Eds), *Indian Education In Canada. Volume 1: The Legacy*. Vancouver: University of British Columbia Press. 1–22.
- Battiste, M. (1998). Enabling the autumn seed: towards a decolonized approach to Aboriginal knowledge, language, and education. *Canadian Journal of Native Education*, 22(1), pp. 16-27.
- Battiste, M. (2013). *Decolonizing education: Nurturing the learning spirit*. Saskatoon, SK: Purich.
- Battiste, M., & Barman, J. (1995). *First Nations Education in Canada: The circle Unfolds*. Vancouver: University of British Columbia Press.
- Blood, T. L. (2010). *Integrating an Aboriginal perspective: Issues and challenges faced by non-aboriginal biology teachers*. (M.Ed., University of Alberta (Canada)). ProQuest Dissertations and Theses.

- Brayboy, B. M (2005). Towards a Tribal Critical Race Theory in education. *The Urban Review*, 37(5), 425- 446.
- Canadian Baptists. (2016). *Fact sheet: Residential schools*. Retrieved from <http://cbwc.ca/wp-content/uploads/2013/05/Fact-Sheet-Residential-Schools.pdf>
- Capella-Santana, N. (2003). Voices of teacher candidates: Positive changes in multicultural attitudes and knowledge. *The journal of Educational Research*, 96 (3), 182-190.
- Castagno, A. E., & Brayboy, B. M. (2008). Culturally responsive schooling for Indigenous youth: A review of the literature. *Review of Educational Research*, 78(4), 941-993.
- Cantu, D. (2001). *An Investigation of the Relationship Between Social Studies Teachers' Beliefs and Practice*. Lampeter: The Edwin Mellen Press.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative approaches to research*. Upper Saddle River, NJ: Merrill/Pearson Education.
- Deer, F. (2013). Integrating Aboriginal perspectives in education: Perceptions of pre-service teachers. *Canadian Journal of Education*, 36(2), 175-211.
- Fleming, R., & Southwell, B. (2005). An investigation of some factors in the education of Indigenous Australians. *Australian Association for Research in Education 2005 conference papers*.
- Frideres, J. (2016). *First Nations in Canada*. Don Mills, Ontario: Oxford University Press.
- Georgiou, S. N. (2008). Beliefs of experienced and novice teachers about achievement.

- Educational Psychology*, 28, 119-131.
- Giroux, H. (1992). *Border crossings: Cultural workers and the politics of education*. NY: Routledge.
- Godlewska, A., Schaepli, L., Massey, J., Freake, S., Adjei, J. K., Rose, J., & Hudson, C. (2017). What do first-year university students in Newfoundland and Labrador know about aboriginal peoples and topics? *The Canadian Geographer / Le Géographe Canadien*, 61(4), 579-594.
- Hattie, J. (2003). Teachers make a difference, what is the research evidence? *Australian Council for Educational Research*, 1-15.
- Hunter, E. (2015). *Integrating Aboriginal Education into the Elementary School Classroom: How Settler Teachers Meaningfully Include Aboriginal Content, Perspectives, and Pedagogy in their Teaching Practice* (Master's thesis). Retrieved from ProQuest.
- Indian Act. (1985). (R.S.C., 1985, c. I-5).
- Indigenous Foundations. (2009). *The Residential School System*. Retrieved from <http://indigenousfoundations.arts.ubc.ca/home/government-policy/the-residential-school-system.html>.
- Kanu, Y. (2002). In their own voices: First Nations students identify some cultural mediators of their learning in the formal school system. *Alberta Journal of Educational Research*, 48, 98-119.
- Kanu, Y. (2005). Teachers' perceptions of the integration of aboriginal culture into the high school curriculum. *Alberta Journal of Educational Research*, 51(1), 50-68. Retrieved from <http://search.proquest.com.proxy.queensu.ca/docview/228669630?accountid=6180>
- Kaomea, J. (2005). Indigenous studies in the elementary curriculum: A cautionary Hawaiian

- example. *Anthropology and Education Quarterly*, 36(1), 24-42.
- Kerr, Jeannie. (2014). Western epistemic dominance and colonial structures: Considerations for thought and practice in programs of teacher education. *Decolonization: Indigeneity, Education & Society*, 3(2), 82-104.
- Lee, S., & Dallman, M. E. (2008). Engaging in a reflective examination about diversity: Interviews with three preservice teachers. *Multicultural Education*, 15(4), 36.
- Library and Archives Canada. (2017). *Terminology Guide: Research on Aboriginal Heritage*. Retrieved from <https://www.bac-lac.gc.ca/eng/discover/aboriginal-heritage/Documents/Terminology%20Guide%20%20Aboriginal%20Heritage.pdf>
- McMillan, J., & Schumacher, S. (2010). *Research in Education: Evidence-Based Inquiry* (7th ed.). Harlow, England: Pearson.
- Morcom, L., Freeman, K., & Davis, J. (2018). Rising like the thunderbird: The reclamation of Indigenous teacher education. In T. Christou (Ed). *The Curriculum History of Teacher Education* (pp. 23-40). New York: Routledge.
- Moreton-Robinson, A. M., Singh, D., Kolopenuk, J., Robinson, A., & Walter, M. (2012). “Learning the Lessons? Pre-Service Teacher Preparation for Teaching Aboriginal and Torres Strait Islander Students”. A Report prepared for the Division of Indigenous Education and Training Future, *Training and Employment, Indigenous Studies Research Network*, Queensland University of Technology.
- Nardozi, A. (2016). *An Exploration of Teacher Candidate Willingness and Readiness to Incorporate Aboriginal Content into their Teaching Practice*. (Ph.D, University of Toronto (Canada)). ProQuest Dissertations and Theses.
- Nardozi, A., & Mashford-Pringle, A. (2014). Engaging Teacher Candidates about Aboriginal

- Education Perspectives in Ontario. *First Nations Perspectives*, 6(1), 52-66
- Ontario Ministry of Education (2015). *Indigenous Education Strategy*. Retrieved from <http://www.edu.gov.on.ca/eng/aboriginal/>
- Pajares, M. F. (1992). "Teachers beliefs and pedagogical research: Cleaning up a messy construct". *Review of Pedagogical Research* 62, 307-332.
- People for Education. (2015). Ontario's schools: *The gap between policy and reality* (Annual Report on Ontario's Publicly Funded Schools 2015). Toronto: People for Education.
- Queen's University. (2017). *Faculty of Education: Teacher Education*. Retrieved from <https://educ.queensu.ca/programs/teacher-education>
- Reyna, C. (2000). Lazy, dumb, or industrious: When stereotypes convey attribution information in the classroom. *Educational Psychology Review*, 12, 85-110.
- Restoule, Jean-Paul. (2008). Fostering Aboriginal awareness in social studies. In C. Rolheiser (Ed.), *Initial Teacher Education: School Improvement and Teacher Education: Collaboration for Change*, pp. 6-12. Toronto: Ontario Institute for Studies in Education of the University of Toronto.
- Riley, T. (2005). *The face of achievement: Influences on teacher decision making about Aboriginal students*. (Unpublished doctoral dissertation). Vancouver, BC: University of British Columbia.
- Riley, T., & Ungerleider, C. (2008). Pre-service teachers' discriminatory judgements. *The Alberta Journal of Educational Research*, 54, 378-387.
- Riley, T., & Ungerleider, C. (2012). Self-fulfilling prophecy: How teachers' attributions, expectations, and stereotypes influence the learning opportunities afforded Aboriginal students. *Canadian Journal of Education*, 35(2), 303-333

- Shulman, L. S. (1986). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1), 1-22.
- Statistics Canada. (2016). *Aboriginal population profile*. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm>
- Snowball, A. (2014). *Aboriginal Education for Non-Aboriginal Learners: Engaging Teacher Candidates in an Immersive Cultural Experience* (Unpublished doctoral dissertation). University of Toronto, Toronto.
- Tashakkori, A., & Teddlie, C. (1998). Mixed methodology: Combining qualitative and quantitative approaches. *Applied Social Research Methods Series, 46*. Thousand Oaks, CA: Sage Publications.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation, 27*(2), 237-246.
- Truth and Reconciliation Commission of Canada (TRC). (2015). *Truth and Reconciliation Commission of Canada: Calls to Action*. Retrieved from: http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.
- United Nations Declaration of Human Rights*, United Nations, 10 December 1948. [UN Human Rights] See article 26.
- White, J., & Peters, J. (2009). A short history of Aboriginal education in Canada. *Aboriginal Policy Research Consortium International, 23*, 13-29.
- Wotherspoon, T. (2008). Teachers' work intensification and educational contradictions in aboriginal communities. *Canadian Review of Sociology/Revue Canadienne De Sociologie, 45*(4), 389-418.
- Zurzolo, C. (2006). *An Exploration of the Experience of Non-Aboriginal Teachers Integrating*

Aboriginal Perspectives into the Manitoba Social Studies Curriculum (Unpublished Master's Thesis). Retrieved from ProQuest, UMI Dissertations Publishing.

Appendices

Appendix A: Prof 502 Course Description



Faculty of Education 2016-2017

Course Number: Prof. 502

Course Name: Introduction to Aboriginal Studies

Course Description:

This course will examine the history, culture, and diversity of Aboriginal Canadians. It will also introduce teacher candidates to the concept of culture-based education, and will aid them in finding ways to integrate Aboriginal perspectives into their classrooms. Finally, it will discuss the realities of life in Northern Canada.

Further Information:

This course will be delivered in lecture, small group, and group activity format. Throughout the course candidates will be introduced to strategies that will help to understand Indigenous world views, history, culture, and traditions, and contemporary issues, as well as address the multiplicity of needs that may arise when working with Indigenous students in the classroom. Learning opportunities for candidates will be founded upon traditional teachings of “honouring each person’s uniqueness; every child is honoured, every parent is respected and every teacher a facilitator of learning”. Students will participate in grand conversations, become active group members, and present findings to small and large groups.

Candidates will explore some of the cultural perspectives and culturally-related resilience exhibited by Indigenous people. A brief examination of the historical influences on teaching and learning from traditional methods, to colonized methodologies, and the emergence of educational decolonization will be included.

Self Reflection will be integral to learning in this course as students explore aspects of Aboriginal identity/culture/language blended with the right to self-determination as it pertains to achieving inclusion of Indigenous content and pedagogy in the classroom.

Appendix B: Pre-Course and Post- Course Survey

Pre-Course Survey:

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Name: _____

(Please provide the first three letters of your last name and the first two letters of your first name)

Are you an ATEP student:

YES

NO

Circle the appropriate number corresponding to each question. There is also space under each question to elaborate if you wish.

- 1) I learned a lot about how to integrate Aboriginal perspectives and support Aboriginal students in my other teaching education courses:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

- 2) Based on my current knowledge, I feel prepared to address Aboriginal content in the general classroom:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

3) I like learning about Aboriginal issues and histories:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

4) I want to be here taking a course on an Introduction to Aboriginal studies:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

5) I think it's important to take a course on Aboriginal education:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

Any additional comments:

Post-Course Survey:

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Name: _____

(Please provide the first three letters of your last name and the first two letters of your first name)

Are you an ATEP student:

YES NO

Did you fill out the initial survey on June 15th?

YES NO

I did not fill out the first survey but wish to participate in the study through an interview:

E-mail: _____

Circle the appropriate number corresponding to each question. There is also space under each question to elaborate if you wish.

- 1) As a result of this course, I have more knowledge on Aboriginal perspectives and how to support Aboriginal students than I previous had, as a result of the course:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

- 2) I believe that the course length was enough time to prepare me to teach Aboriginal content in the general classroom:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

- 3) I believe that my attitudes towards Aboriginal education were positively changed over the duration of the course:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

- 4) I feel confident in my knowledge to integrate Aboriginal content into the general classroom as a result of this course:

1 Strongly Disagree	2 Somewhat Disagree	3 Neither Agree nor Disagree	4 Somewhat Agree	5 Strongly Agree
---------------------------	---------------------------	------------------------------------	------------------------	---------------------

5) Explain below any recommendations for course improvement:

Appendix C: Interview Guides

Interview Guide for Mainstream Teacher Candidates: *Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education*

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

Introduction:

Thank you very much for taking the time to be interviewed. To reiterate briefly, the purpose of my study is to explore teacher candidates' perceptions and attitudes towards Aboriginal education, prior to and after completing Prof 502: Introduction to Aboriginal Studies. The interview phase of my research is to gain further insight into your perspectives and attitudes towards both; Aboriginal education and taking PROF: 502 Introduction to Aboriginal studies. During the interview, you will also have the opportunity to share any improvements or recommendations you have for course improvement.

Before starting, I would like to remind you that you do not need to answer any questions that you do not want to and you can withdraw from the interview at any point just by indicating this to me. Do you have any questions before starting? Is it okay to continue?

Questions:

Background Questions:

- 1) Can you describe your own learning experiences related to Aboriginal education?
 - a. Do you believe you learned an adequate amount of information about Aboriginal histories and cultures in your experiences student (I.e.; elementary, post-secondary, undergrad)?

Course-related Questions:

- 1) Briefly describe your attitude and perceptions towards Aboriginal education prior to the course?
 - a. Did these attitudes and perspectives change over the duration of the course?
 - i. If yes:

1. What aspects of the course underlined a change in your attitudes and perceptions?
- ii. If not:
 1. What aspects of the course underlined a lack of change in your attitudes and perceptions?
- 2) Do you think that the course prepared you well enough to integrate Aboriginal content and perspectives into the general classroom? Explain.
 - a. As a future teacher, will you be more likely to integrate Aboriginal content and perspectives into the general classroom now that you have taken this course?

Course Improvement Questions:

- 1) Describe your initial attitudes and perceptions towards taking Prof 502?
- 2) Do you think the length of the course was a sufficient time for you to learn about Aboriginal education?
 - a. Do you think the length of the course is sufficient time for a teacher candidate with little background knowledge on Aboriginal content? Why or Why not?
- 3) Do you think that the time placement of the course (being in June) is a good time for the course to be instructed? Why or Why not?
- 4) Do you have any recommendations for course improvement?

Final question:

- 5) Is there anything that I haven't asked you already that you think is important to address?

Conclusion:

Thank you very much for taking the time to talk with me today. I really appreciate it. I just want to remind you of confidentiality and that you will not be personally identified in this interview. [Hand participant the debriefing letter]. As outlined in this letter, if you would like a copy of the findings, you can contact me at 1kmep@queensu.ca.

Interview Guide for ATEP Teacher Candidates:
Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

Introduction:

Thank you very much for taking the time to be interviewed. To reiterate briefly, the purpose of my study is to explore teacher candidates' perceptions and attitudes towards Aboriginal education, prior to and after completing Prof 502: Introduction to Aboriginal Studies. The interview phase of my research is to gain further insight into your perspectives and attitudes towards both; Aboriginal education and taking PROF: 502 Introduction to Aboriginal studies. During the interview, you will also have the opportunity to share any improvements or recommendations you have for course improvement.

Before starting, I would like to remind you that you do not need to answer any questions that you do not want to and you can withdraw from the interview at any point just by indicating this to me. Do you have any questions before starting? Is it okay to continue?

Questions:

Background Questions:

- 2) Can you describe your own learning experiences related to Aboriginal education?
 - a. Do you believe you learned an adequate amount of information about Aboriginal histories and cultures in your experiences student (I.e.; elementary, post-secondary, undergrad)?

Course-related Questions:

- 3) Could you briefly describe your attitude towards having to take this course, despite being an ATEP student?
 - a. Did these attitudes and perspectives change over the duration of the course?
 - i. If yes:
 1. What aspects of the course underlined a change in your attitudes?
 - ii. If not:
 1. What aspects of the course underlined a lack of change in your attitudes?

- 4) Do you think that this course is important for pre-service teachers to take? Explain.
- 5) As an ATEP student, is there any particular content that you think pre-service teachers should leave the faculty of education with?

Course Improvement Questions:

- 6) Do you think the length of the course was a sufficient time for you to learn about Aboriginal education?
 - a. Do you think the length of the course is sufficient time for a teacher candidate not in ATEP? Why or Why not?
- 7) Do you think that the time placement of the course (June) is a good time for the course to be instructed? Why or Why not?
- 8) Do you have any recommendations for course improvement?

Final question:

- 9) Is there anything that I haven't asked you already that you think is important to address?

Conclusion:

Thank you very much for taking the time to talk with me today. I really appreciate it. I just want to remind you of confidentiality and that you will not be personally identified in this interview.

[Hand participant the debriefing letter]. As outlined in this letter, if you would like a copy of the findings, you can contact me at 1kmep@queensu.ca.

Interview Guide for Course Instructor
*Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and
Towards the Integration of Indigenous Education*

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

Introduction:

Thank you very much for taking the time to be interviewed. To reiterate briefly, the purpose of my study is to explore teacher candidates' perceptions and attitudes towards Aboriginal education, prior to and after completing Prof 502: Introduction to Aboriginal Studies. The interview phase of my research is to gain further insight into your perspectives and attitudes towards both; Aboriginal education and taking PROF: 502 Introduction to Aboriginal studies. During the interview, you will also have the opportunity to share any improvements or recommendations you have for course improvement.

Before starting, I would like to remind you that you do not need to answer any questions that you do not want to and you can withdraw from the interview at any point just by indicating this to me. I will not personally identify you in the research however being the course instructor you are identifiable. Do you have any questions before starting? Is it okay to continue?

Questions:

Course Improvement Questions:

- 10) Describe your initial attitudes and perceptions towards teaching Prof 502?
 - a. Can you describe the overall student attitude towards taking this course?
- 11) Do you think the length of the course was a sufficient enough time for you to teach an Introduction to Aboriginal studies course?
 - a. Do you think the length of the course is sufficient time for teacher candidates to effectively learn Aboriginal content? Why or Why not?
 - b. Do you think students learned enough by taking this course?
- 12) Do you think that the time placement of the course (being in June) is a good time for the course to be instructed? Why or Why not?
- 13) Do you have any recommendations for course improvement?

Final question:

- 1) Is there anything that I haven't asked you already that you think is important to address?

Conclusion: Thank you very much for taking the time to talk with me today. I really appreciate it. I just want to remind you of confidentiality and that you will not be personally identified in this interview.

Appendix D: Letter of Information and Consent Form

LETTER OF INFORMATION AND CONSENT FORM
Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and
Towards the Integration of Indigenous Education

Dear Teacher Candidate,

This research is being conducted by Kaitlind Peters, a Master's student in the Faculty of Education at Queen's University in Kingston, Ontario

What is this study about? The purpose of this study is to develop an understanding of teacher candidates' perceptions and attitudes towards Aboriginal education prior to and after the completion of PROF 502: Introduction to Aboriginal Studies. The study is informed by two research questions: What aspects of the course underlined a change or lack of change in pre-service teacher's attitudes or perceptions towards Aboriginal education? Does coursework adequately prepare pre-service teachers to confidently integrate Aboriginal content into the general classroom? Study participants will be teacher candidates from the Queen's University: Bachelor of Education program (Class of 2017). The sample of teacher candidates will be those who are required to take PROF 502: Introduction to Aboriginal Studies as part of their program requirement. A selection criteria will be used in the survey and interview phases to both differentiate and maintain a balance between Aboriginal Teacher Education Program (ATEP) students and students without an ATEP background.

What does participation in this study involve? Two five-question surveys will be distributed during class time. The first survey will be on the first day of the course and the second survey will be on the last day of the course. The time commitment for each survey is approximately 5-minutes. In addition, you are invited to take part in a 30-45-minute interview process after the final grades of the course have been submitted. The interview process will be used to provide further insights and recommendations for course improvement. All interviews will occur at a time and location convenient to participants.

How will the data be analyzed? The information you share in your survey will be aggregated and analyzed statistically only. Data from individual surveys will not be presented in the final thesis or any resulting publications. It is extremely unlikely that any identifying information could be gathered from this data. With respect to the interviews, no identifying information will be included in the final thesis or any resulting publications. I will transcribe the interviews myself and then look for overarching themes in them. I will not share the recordings or transcripts of the interviews with anyone else, and I will also not include any names or other personal information in my thesis or any other publications. I will always do my best to make sure your privacy is protected, but remember to keep in mind that I am recording when you decide what to say in your interview. Once the study is done, I will keep all the recordings and the written copies in a locked cabinet in my office for five years.

What will happen to your responses? Your responses will be kept confidential. Kaitlind Peters will only have access to this information at the end of June 2017, when all the course marks have been submitted. Jennifer Davis will only be able to access the data after it is stripped of all identifiers and pseudonyms have been applied to the data. The involvement of participants in the interview part of the study will be kept confidential; however, please note that while directly identifying information will not be included in the results, given that the sample size is small, readers may be able to identify you from the information you share. Please keep that in mind when deciding what to tell me during your interview. Results from this study will be published in Kaitlind Peters master's study and may be published in professional journals or presented at conferences, but any such presentations will maintain confidentiality. In accordance with the General Research Ethics Board Standard Operating Procedures, data will be securely stored/password protected for a minimum of five years. If data are used for secondary analysis, they will contain no identifying information. You are entitled to a copy of the findings, if you are interested. If you would like a copy of the findings, please contact: Kaitlind Peters at 1kmep@queensu.ca.

Is participation voluntary? Yes. Participation in this study has no impact on your mark for this course, or on the marks for any of your assignments. You should not feel obliged to answer any questions that you find objectionable or that make you feel uncomfortable. You may choose to withdraw from the study up to three months after completing the second survey or from the interview date. If you wish to withdraw from the survey between June 14, 2017- June 30, 2017 contact Lindsay Morcom at morcoml@queensu.ca. If you wish to withdraw after June 30, 2017 contact Kaitlind Peters at 1kmep@queensu.ca. If you withdraw, you may request removal your survey data, interview data or both.

Are there any risks to do this study? There are no known physical, psychological, economic, or social risks associated with this study. Participation in this activity has no impact on your mark for this course, or on the marks for any of your assignments. To ensure that there is no risk of power imbalance, myself, Dr. Davis and the teaching assistants will leave the room while you are given time to decide whether to sign the consent form and complete the survey. Christina Luzius-Vanin will collect the completed surveys and consent forms. She will keep them sealed in an envelope and secure them in a locked file cabinet until the final grades for the course have been submitted. Christina has no association to the course or to course marks. She is an independent supporter and her only role is to distribute and collect the LOI/CF's and surveys so that myself and Jennifer do not have access to them during the course.

What are the benefits for participating? There are no direct benefits in participating in this research study, however, the information you provide can be helpful to restructure the course for future teacher candidates, through the recommendations and the data you provide.

Will you be compensated for your participation? Those who choose to participate in the study by completing the survey and signing the consent form will be placed in a draw to win one of five \$10 gift cards to either Starbucks or Cineplex. However, the gift cards will not be distributed to you until the final marks have been submitted (when I have access to the consent forms). For those participating in the interview, each interviewee will receive a \$10 dollar Cineplex or Starbucks gift card for their time.

What if you have concerns? Any questions about study participation may be directed to Kaitlind Peters at 1kmep@queensu.ca or Dr. Lindsay Morcom at 613-533-6000 extension 77269 and morcoml@queensu.ca. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

Thank you for your interest in participating in this research study.

Consent Form

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Name (please print clearly): _____

1. I have read the Letter of Information and have had any questions answered to my satisfaction.
2. I understand that the two surveys and the interviews will be used for research purposes in the study called Inclusion of Aboriginal Education: Examining Pre-service Teachers' Attitudes and Perceptions.
3. I understand that my participation in this study is voluntary and I may withdraw up to three months after completion of the last survey or interview date. I understand that if I wish to withdraw from the study after the completion of the first survey (between June 14, 2017- June 22, 2017) I can contact Lindsay Morcom. I understand that every effort will be made to maintain the confidentiality of the data now and in the future. Kaitlind Peters will have access to the survey data at the end of June 2017, when all the course marks have been submitted. The data from this study will be published in Kaitlind Peters master's study and may also be published in professional journals or presented at conferences, any such presentation will protect your identity to the extent possible. I understand that I am entitled to a copy of the findings, if I am interested.
4. I am aware that if I have any questions, concerns, or complaints, I may contact Kaitlind Peters at 1kmep@queensu.ca or Dr. Lindsay Morcom at 613-533-6000 extension 77269 or at morcoml@queensu.ca. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 1-844-535-2988.

I have read the above statements and freely consent to:

- my survey data being used for the study
- being interviewed for the study

Signature: _____ Date: _____

Section A

I agree to allow Kaitlind Peters to contact me through my Queen's University email address to request participation in the interviews associated with this study after the completion of the course.

Contact Information:

Email: _____

Section B

- I would like to receive a summary of the study findings

Email: _____

Participants can keep a copy of the Consent Form

Appendix E: Debriefing Letters

DEBRIEFING LETTER: SURVEY PARTICIPATION

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Teacher apprehension to integrate and deliver Aboriginal perspectives in the general classroom is a lingering issue that should become a prioritized focus in Ontario Teacher Education programs. Pre-service teachers' attitudes and perceptions towards Aboriginal education can impact teacher instructional judgments and pedagogical decisions, which influence the learning opportunities afforded to Aboriginal and non-Aboriginal students (Riley & Ungerleider, 2012). It is important to examine pre-service teachers attitudes and perceptions towards Aboriginal education due to the influential role that teachers have on students.

You have helped with the first phase of the research by participating in the surveys. Once the interview phase has been completed, we can begin to examine whether this course adequately prepares pre-service teachers to teach Aboriginal content. We can also make recommendations for course improvements.

Please feel free to talk to the researcher (1kmep@queensu.ca) for more information on the research you just participated in. If you would like further information on this area of research, these are some related references that might be of interest to you.

1. Deer, F. (2013). Integrating Aboriginal perspectives in education: Perceptions of pre-service teachers. *Canadian Journal of Education*, 36(2), 175-211.
<http://search.proquest.com.proxy.queensu.ca/docview/1491098839?pq-origsite=summon>
2. Riley, T., & Ungerleider, C. (2012). Self-fulfilling prophecy: How teachers' attributions, expectations, and stereotypes influence the learning opportunities afforded Aboriginal students. *Canadian Journal of Education*, 35(2), 303-333
<http://search.proquest.com.proxy.queensu.ca/docview/1032662319?pq-origsite=summon>

If you would like a copy of the findings, please contact: Kaitlind Peters at 1kmep@queensu.ca. Again, thank you. Your interest in participating in this research study is greatly appreciated.

Any questions about the study and your participation in it may be directed to Dr. Lindsay Morcom at 613-533-6000 extension 77269 or at morcoml@queensu.ca.

Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board (GREB) at 1-844-535-2988 or chair.GREB@queenu.ca

DEBRIEFING LETTER: INTERVIEW PARTICIPATION

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Teacher apprehension to integrate and deliver Aboriginal perspectives in the general classroom is a lingering issue that should become a prioritized focus in Ontario Teacher Education programs. Pre-service teachers' attitudes and perceptions towards Aboriginal education can impact teacher instructional judgments and pedagogical decisions, which influence the learning opportunities afforded to Aboriginal and non-Aboriginal students (Riley & Ungerleider, 2012). It is important to examine pre-service teachers attitudes and perceptions towards Aboriginal education due to the influential role that teachers have on students.

You have helped with the second phase of the research by participating in the interviews. We can now begin to examine whether this course adequately prepares pre-service teachers to teach Aboriginal content. We can also make recommendations for course improvements.

Please feel free to talk to the researcher (1kmep@queensu.ca) for more information on the research you just participated in. If you would like further information on this area of research, these are some related references that might be of interest to you.

1. Deer, F. (2013). Integrating Aboriginal perspectives in education: Perceptions of pre-service teachers. *Canadian Journal of Education*, 36(2), 175-211.
<http://search.proquest.com.proxy.queensu.ca/docview/1491098839?pq-origsite=summon>
2. Riley, T., & Ungerleider, C. (2012). Self-fulfilling prophecy: How teachers' attributions, expectations, and stereotypes influence the learning opportunities afforded Aboriginal students. *Canadian Journal of Education*, 35(2), 303-333
<http://search.proquest.com.proxy.queensu.ca/docview/1032662319?pq-origsite=summon>

If you would like a copy of the findings, please contact: Kaitlind Peters at 1kmep@queensu.ca. Again, thank you. Your interest in participating in this research study is greatly appreciated.

Any questions about the study and your participation in it may be directed to Dr. Lindsay Morcom at 613-533-6000 extension 77269 or at morcoml@queensu.ca.

Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board (GREB) at 1-844-535-2988 or chair.GREB@queenu.ca.

Appendix F: Recruitment Script

Recruitment Script

Inclusion of Indigenous Education: Examining Pre-service Teachers' Knowledge and Towards the Integration of Indigenous Education

Statement explaining the project:

My name is Kaitlind Peters and I am a Master's student here at faculty of Education. As part of my thesis research, I want to evaluate this specific course. For some of you this may be one of the only courses you have ever taken on Aboriginal studies and for others you may have a lot of knowledge already. I am particularly interested in how this course helps your professional development.

The purpose of my study is to explore teacher candidates' perceptions and attitudes towards Aboriginal education, prior to and after completing this course. The study is informed by two research questions: What aspects of the course underlined a change or lack of change in pre-service teacher's attitudes or perceptions towards Aboriginal education? Does coursework adequately prepare pre-service teachers to confidently integrate Aboriginal content into the general classroom?

Participation in this study is voluntary and will have no impact on your mark for this course, or on the marks for any of your assignments.

The study will involve three phases. The first phase is a five-question survey, which will be distributed today (as the first day of the course). Another five-question survey will be distributed on the last day of the course. The surveys will each require a time commitment of approximately 5-minutes to complete. On the survey, you will not be identifiable (since you do not have to write your name on survey page). However, to ensure there are no risk to your participation as a student, myself, Dr. Davis and the teaching assistants will leave the room while you are given time to decide whether to sign the consent form and complete the survey. Christina Luzius-Vanin will distribute the surveys and they will be sealed in an envelope and secured in a locked file cabinet until the final marks have been submitted. Christina is an independent supporter and her only role is to distribute and collect the LOI/CF's and surveys so that myself and Jennifer do not have access to them during the course.

In addition to the survey, you are invited to take part in a 30-45 minute interview after the final grades of the course have been submitted. The interview phase will be used to gain more insight and allow you to provide any recommendations for course improvements. A selection criteria will be used in the interview phase of the research to both differentiate and maintain a balance between Aboriginal Teacher Education Program (ATEP) students and students without an ATEP background. A random selection of 19 students will be selected for the interview phase of the research. These 19 participants will be drawn from two different samples; ATEP students and non-ATEP students. Participants will be randomly selected from each sample until a total of 19 participants have been chosen. Since there are less ATEP students than non-ATEP students, a minimum number of 5 ATEP students will be selected out of the total 19 participants. If you

wish to be interviewed, you will add your email address in the appropriate field when you get the consent form.

For those who choose to participate in the study by completing the survey and signing the consent form will be placed in a draw to win one of 5 gift cards. However, the gift cards will not be distributed to you until the final marks have been submitted (when I have access to the consent forms). For those participating in the interview, each interviewee will receive a 10 dollar gift card for their time.

Does anyone have any questions?

Appendix G: Confidentiality Agreement

Confidentiality Agreement

Project Title: Inclusion of Aboriginal Education: Examining Pre-service Teachers' Attitudes and Perceptions.

PI: Kaitlind Peters

I _____ have read and retained the Letters of Information concerning the research project Inclusion of Aboriginal Education: Examining Pre-service Teachers' Attitudes and Perceptions.

I understand that maintaining confidentiality means that: **I agree not to reveal in any way to any person other than the PI any data gathered for the study by means of my services as an independent supporter.** I will comply with the requirements for confidentiality.

Upon the termination of the work assigned by Kaitlind Peters, I will return all confidential information and project materials to her. I will permanently delete copies from any electronic devices used for the purposes of completing the assigned tasks.

Identification and Signature Indicating Agreement

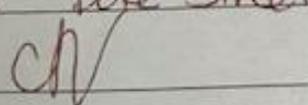
Name: Christina Lozius-Vanin

Email: 14Clv2@queensu.ca

Telephone: 519-709-9296

Mailing Address:

Unit 202, 21 Duke Street, L8P 1W8, Hamilton ON

Signature: 

Contact Information:

Questions about this agreement or the study may be directed to:
Dr. Lindsay Morcom, Queen's University, Kingston, ON K7L 3N6
Tel: 613-533-6000 extension 77269
Email: morcoml@queensu.ca

If you have any ethics concerns please contact the General Research Ethics Board (GREB) at chair.GREB@queensu.ca.

Appendix H: GREB Approval



June 13, 2017

Miss Kaitlind Peters Master's Student Faculty of Education Queen's University Duncan McArthur Hall 511 Union Street West Kingston, ON, K7L 3N6

GREB Ref #: GEDUC-856-17; TRAQ # 6021010 Title: "GEDUC-856-17 Inclusion of Aboriginal Education: Examining Pre-service Teachers' Attitudes and Perceptions"

Dear Miss Peters:

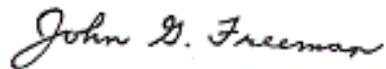
The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "**GEDUC-856-17 Inclusion of Aboriginal Education: Examining Pre-service Teachers' Attitudes and Perceptions**" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one year period (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk,

applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies". Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at the Office of Research Services for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research. Sincerely,

A handwritten signature in cursive script that reads "John G. Freeman".

John Freeman, Ph.D. Chair General Research Ethics Board
c: Dr. Lindsay Morcom, Supervisor Dr. Jennifer Davis, Co-investigator
Dr. Richard Reeve, Chair, Unit REB Mrs. Erin Rennie, Dept. Admin.