Teacher Candidates' and Course Instructors' Perspectives of a Mandatory Indigenous Education Course

Brock Education

A journal of educational research and practice

2021 Vol. 30 (1) 117–135

https://journals.library.brocku.ca/brocked

Melissa Oskineegish* and Paul Berger

Lakehead University

Abstract

This mixed methods study examined non-Indigenous teacher candidates' attitude towards a mandatory Aboriginal Education course in teacher education from teacher candidates' and course instructors' perspectives. Results from Likert-scale pre- and post-course surveys of two sections of an Aboriginal Education course at a small Canadian university indicated that teacher candidates felt more knowledgeable by the end of the course, and maintained a fairly strong interest in and positive attitude towards the course. Results from course instructors provided additional and at times contradictory information, describing the course as limited and, at best, an introduction to the issues and perspectives within Indigenous education. The results suggest the need for mandatory Indigenous Education courses and for faculties of education and school boards to provide further learning opportunities with Indigenous education content and resources.

Keywords: Indigenous education, teacher education, mixed methods research

* mmoberly@lakeheadu.ca

Authors' Note

This article draws on research that was supported in part by funding from the Social Sciences and Humanities Research Council.

In the Truth and Reconciliation Commission of Canada's (TRC) *Calls to Action*, schools across Canada are called upon to develop and implement "Kindergarten to Grade Twelve curriculum and learning resources on Aboriginal peoples in Canadian history, and the history and legacy of residential schools" (TRC, 2015, p. 7). This objective requires teachers to be knowledgeable on, and capable of integrating, accurate and culturally appropriate Indigenous content. Milne (2017) found that teachers who were reluctant to integrate Indigenous content lacked both knowledge and confidence; researchers recommend that further preparation be provided in teacher education and in professional development (Korteweg & Fiddler, 2018). In addition to broadening knowledge of Indigenous peoples, cultures, and histories, teachers need to become open and willing to learn new perspectives—an attitude that can and should be fostered in teacher education programs (Milne, 2017). This paper discusses findings from a study that explored teacher candidates' knowledge of, interest in, and attitudes toward a mandatory Aboriginal Education course in a small Canadian university, and compares that with the perspectives of five instructors who have taught the course. Drawn from a larger study that examined the role of self-reflective practices in the course, data in this paper stem from a pre- and post-course survey completed by teacher candidates, interviews with three teacher candidates and five course instructors, and Melissa's role as participant-as-observer in the classes. We discuss the realities and tensions of developing teacher candidates' knowledge and attitude towards integrating Indigenous histories, cultures, and perspectives in teacher education. We begin with a brief introduction of the authors and an explanation about terminology prior to a review of literature on Indigenous education in initial teacher education, the methodology and methods used, and a report on the findings.

Author Introductions and Terminology

The genesis of this study was the experience of Melissa Oskineegish, who, as a non-Indigenous teacher, began her teaching career in a fly-in First Nation community in northern Ontario. The mentorship provided by colleagues and community members influenced her to further explore how non-Indigenous educators can learn to develop meaningful and culturally appropriate teaching pedagogies and practices within teacher education programs. Paul Berger, a non-Indigenous scholar at Lakehead University, was the dissertation supervisor. His research explores Inuit wishes for schooling and recruiting Inuit to teaching. This paper is drawn from the study's findings and from conversations between the authors about further educational possibilities for teacher candidates and teachers who will teach about Indigenous content.

The study within this paper is centred on a course at Lakehead University entitled EDUC 4416 Aboriginal Education (now called: EDUC 4359 Aboriginal Education). The term Aboriginal and Indigenous are used in Canada when referring to the collective groups of First Nation, Métis,

and Inuit peoples (The Constitution Act, 1982)[1]. Participants in the study also used the terms First Nation and Native to describe the First Peoples of Canada. In this paper, these are used when quoting directly; otherwise, the more widely accepted term "Indigenous" is used.

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

Indigenous Education and Teacher Preparation

Preparing teachers in Indigenous education remains as urgent today as it was four decades ago when the National Indian Brotherhood/Assembly of First Nations (1972) first called upon the Canadian federal government and educational institutions to improve teacher preparation on intercultural pedagogies and the integration of Indigenous content. Reiterated in the TRC's (2015) *Calls to Action*, education on Indigenous histories, cultures, and perspectives is a component of teacher education that requires further attention and improvement.

Research on Indigenous Education in teacher education programs across Canada (e.g., Blimkie et al., 2014; Curwen Doige, 1999; Dion, 2007; Madden, 2015; Mashford-Pringle & Nardozi, 2013; Nardozi et al., 2014; Oskineegish, 2020; Scully, 2012; Vetter & Blimkie, 2011) and internationally (e.g., Aveling, 2006; Labone et al., 2014; McInnes, 2017) explores the obstacles and possibilities for incorporating Indigenous education in initial teacher education. Many non-Indigenous teacher candidates across teacher education programs arrive with little knowledge, and continue to feel hesitation and uncertainty, or are resistant to integrating Indigenous content into their teaching practice, regardless of how they are introduced to the issues and perspectives (Aveling, 2006; Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013; Tupper, 2011).

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

[1] Available at https://canlii.ca/t/8q7l

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

Part of the discomfort and uncertainty that teacher candidates feel may stem from the deconstruction and decolonization aspect of Indigenous education courses. Decolonizing education within Indigenous education courses is often unsettling for teacher candidates as it digs into the roots of self-identity within Canada and teacher education (Aveling, 2006; Battiste, 2013; Curwen Doige, 1999; Dion, 2007). Decolonizing education requires teacher candidates to recognize colonial powers, how colonialism is structured, and how it continues to oppress and benefit people (Iseke-Barnes, 2008). For some teacher candidates, this requires unraveling the "Canadian historical narrative and deconstruct the foundational myth of the benevolent peacemaker" (Regan, 2011, p. 11)—a learning process that may not be fulfilled within a single teacher education course.

Non-Indigenous teacher candidates are entering teaching with uncertainty, discomfort, and a general lack of confidence to integrate Indigenous content. Without further learning opportunities and a personal interest to continue learning, some teachers may choose to avoid integrating Indigenous content or worse, provide false information due to a lack of knowledge (Milne, 2017).

Most research on Indigenous education in teacher preparation is written from an individual instructor's perspective (e.g., Aveling, 2006; McInnes, 2017; Scully, 2012) or from teacher candidates' perspectives (e.g., Mashford-Pringle & Nardozi, 2013). This study compares findings from instructors' and teacher candidates' perspectives, exploring how prepared teacher candidates are to integrate Indigenous content into their teaching.

Methodology

This study utilized a mixed methods approach that integrated both qualitative and quantitative methods within its overall design (Tashakkori & Teddlie, 2010). A mixed methods approach to research has been defined as an "approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints" (Johnson et al., 2007, p. 113). The mixed methods in this study build on the complementary stance, positioning the quantitative and qualitative methods, procedures, and analyses as separate paradigms (Creswell, 2014). The findings from each methodological approach complement each other and help provide a multi-perspective understanding of the knowledge and attitude of teacher candidates in a mandatory Aboriginal Education course.

Methods

Data within this paper were drawn from quantitative Likert-scale pre- and post-course surveys, semi-structured interviews with three teacher candidates and five course instructors, and Melissa's role as participant-as-observer in the Aboriginal Education classes.

A 5-point Likert-scale survey developed by Melissa was administered to 45 teacher candidates during the first and last week of two sections of the Aboriginal Education course in fall 2016. Twenty-two teacher candidates were in the undergraduate concurrent education program at Lakehead University and completed the 18-hour course in 12 weeks. Twenty-three were in the final year of the teacher education program and completed the 18-hour course in 9 weeks, followed by a 5-week teaching placement. The purpose of the survey was to measure teacher candidates' self-reported knowledge of, interest in, and attitudes towards Indigenous education at the beginning of the course and to compare this with the results at the end of the course. The surveys were comprised of 11 statements, with teacher candidates asked to indicate their level of agreement with each statement. Forty-four of 45 teacher candidates completed the Likert-scale survey in the first week, and 39 of 45 completed the survey in the last week of the course (six were absent).

After the completion of the course in December 2016, semi-structured interviews were conducted between January and March 2017 with three teacher candidates in the teacher education program, and five instructors who had taught the Aboriginal Education course for more than one semester. One of the instructor interviewees taught the course within this study and four had taught the course in previous years. Semi-structured interviews are engaged conversations between researcher and participant that do not always follow the predetermined questions (Kovach, 2009; Savin-Baden & Major, 2013). The guiding interview questions for course instructors and teacher candidates were provided to the participants prior to the scheduled interview, allowing an opportunity for a more thoughtful response (Kovach, 2009).

The three teacher candidates identified themselves as non-Indigenous. Four of the course instructors identified as Indigenous and one as non-Indigenous. All of the interviews with teacher candidates took place in person. Two of the interviews with course instructors took place in person and three were conducted by telephone. Interviews with teacher candidates lasted between 20 minutes and 1 hour, and interviews with instructors lasted between 1 and 2 hours. Interviews with teacher candidates and instructors began with informal conversations to ensure familiarity and clarity of purpose of the study (Creswell, 2014). Responses to the interview questions were audio-recorded and transcribed. Course instructors provided lengthier and more in-depth responses to the questions; as a result, their responses were member checked (Merriam & Tisdell, 2016; Shenton, 2004). Four instructors responded after receiving the transcript and two provided editorial changes that clarified their position or response.

In both sections of the course, Melissa attended all of the Aboriginal Education classes as participant-as-observer (Babchuk, 1962; DeWalt & DeWalt, 2002). Melissa provided an introduction at the beginning of both courses with an overview of the intended research, the position of participant-as-observer, and teacher candidates' anonymity. During her time with the classes, she made reflective notes in a journal and interacted with teacher candidates informally to build relationships and understanding of their experience in the Aboriginal Education course and the education program.

Analysis

Analysis of the quantitative survey data included descriptive statistics and the comparison of two sets of scores (Greasley, 2008; Nardi, 2006). Analysis of the qualitative data from both teacher candidates' and instructors' interviews were coded in Atlas.ti, a qualitative coding software program. Interviews were coded for words, themes, and phrases that were repeated across several interviews (Onwuegbuzi & Combs, 2010).

Trustworthiness was addressed from two different theoretical underpinnings. In most quantitative studies researchers must ensure reliability, validity, and generalizability (Belli, 2009), whereas in qualitative studies, a researcher aims for persuasiveness, authenticity, and plausibility (Butler-Kisber, 2010). In this study, reliability and validity were addressed through an internal consistency construct that measured how well the items on the survey measured what they were intended to measure (Henson, 2001). During the survey development, the survey was critiqued by five peers and faculty members in the education field and adjustments were made after each person's feedback.

Participants

All teacher candidates remained anonymous. Teacher candidates were not asked if they identify as a person with Indigenous ancestry. Many of the teacher candidates identified as non-Indigenous through information conversations with the course instructor and first author. The instructors consented to being named in the dissemination of the research. Four instructors responded to a draft of this paper for their input and approval. The following paragraphs provide a brief background of the instructors who participated in this study.

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

Dr. Lex Scully is a non-Indigenous woman of Celtic heritage. She taught 17 sections of Aboriginal Education and is the only participant to have taught the course at the Thunder Bay and Orillia campuses. At the time of the interview, Lex was completing her dissertation, which explores place-based practices in Indigenous Education courses. She was the only participant who was not a tenure-track or tenured faculty member.

Dr. Lolehawk Laura Buker is a retired Indigenous professor who identifies as Stó:lō, People of the River. She identifies with her grandmother's family who came from the great salmon corridor of northern British Columbia in the Big River district nation. Laura taught Aboriginal Education consistently for 8 years, from its inception in 2007 until her recent retirement.

The late Dolores Wawia (also known as "Frog Lady") was Anishinaabe from Gull Bay First Nation. Her early work in education was instrumental in the implementation of Indigenous content in Lakehead University's Faculty of Education since the 1980s. Dolores was a tenured faculty member and taught the course from before 2007, when it was called Multicultural and Aboriginal Education until her retirement. Dolores passed away in 2020.

Dr. Sandra Wolf is Anishinaabe from Turtle Mountain in North Dakota. Sandra contributed to the development of the Aboriginal Honours Bachelor of Education program and taught courses at the graduate and undergraduate level. She taught Aboriginal Education intermittently between 2007 and her recent retirement.

We are thankful to all participants who generously shared their time, experiences, and perspectives throughout the study.

Results

The findings begin with descriptive statistics on teacher candidates' responses to three survey statements that best represented their self-reported knowledge of, interest in, and attitude towards Indigenous Education at the beginning and end of the Aboriginal Education course. Other survey questions are not reported on. Some were used for validity and some represent topics outside the scope of this paper. The pre- and post-course differences in the scores are explored with a discussion of teacher candidates' interest and attitudes towards course content from teacher candidate interviews and from observations in two sections of the Aboriginal Education course. This is followed by course instructors' perspectives of teacher candidates' knowledge and attitude towards course content.

Survey Responses

Teacher candidates responded to the survey statement, "I am knowledgeable about FNMI histories, cultures, and perspectives" (see Table 1) at the beginning (n=44) and end (n=39) of the course. Results from the beginning of the course indicated that 39% of teacher candidates

did not consider themselves knowledgeable about Indigenous histories, cultures, and perspectives; 23% identified as knowledgeable, and 38% responded with "neutral." It is unknown as to why so many responded with "neutral." It is conceivable that at the beginning of the course, teacher candidates felt unsure about their knowledge or were unwilling to admit a lack of knowledge. The percentage of teacher candidates indicating a lack of knowledge echoes previous research about teacher candidates' prior knowledge of Indigenous content (Blimkie et al., 2014; Dion, 2007; Mashford-Pringle & Nardozi, 2013).

At the end of the course, 85% indicated that they were knowledgeable about FNMI histories, cultures, and perspectives. No one disagreed with the statement and 15% responded with "neutral." This response to the statement in the survey received the greatest positive change. While an increase in self-reported knowledge is expected in pre- and post-course surveys, the extent of the increase from the pre-course (23% agree or strongly agree) to the post-course (85% agree or strongly agree) suggests that the Aboriginal Education course had an impact on many students. Still, this result alone does not ensure that teacher candidates are willing to develop and integrate Indigenous content into their teaching.

Table 1

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

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

Results from teacher candidates' response to the survey statement, "I plan on integrating FNMI histories, cultures, and/or perspectives into my classroom lessons and instruction" (see Table 2) indicated that most teacher candidates plan to integrate Indigenous content in their teaching. Most responded in agreement in both the pre- and post-course surveys, with a significant increase in those who indicated "strongly agree" from the pre-course (16%) to the post-course (36%) surveys. Since it can be challenging for non-Indigenous teachers to incorporate

Indigenous content (Korteweg & Fiddler, 2018), teacher candidates' strong initial intention to do so, and the strengthening of this intention by the end of the course, is encouraging.

Table 2

Teacher Candidates' Responses to the Statement, "I plan on integrating FNMI histories, cultures, and/or perspectives into my classroom lessons and instruction"

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

Teacher candidates were asked a question related to attitude: "Learning about FNMI histories, cultures, and/or perspectives is an important aspect of my preparation as a teacher" (see Table 3). Eighty percent agreed or strongly agreed in the pre-course survey and 87% agreed and strongly agreed in the post-course survey. Even though all teacher candidates were required to complete the Aboriginal Education course regardless of their interest or professional stream, a majority identified some of the key material covered in the course as an important aspect of their teacher preparation.

Table 3

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

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

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

Teacher Candidates' Perspectives

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

Another teacher candidate who completed her teaching experience in an urban school in the same northern Ontario city had a different reaction to the course. She said that she was initially upset that the mandatory course was "forced" upon her, but about halfway through the course she began to see the value in it. The third teacher candidate completed his placement in southern Ontario and had no Indigenous students that he knew of in his class. His view of the course also shifted by the end of the course. He explained: "At the start, honestly, I was just doing the course because I had to, not that I was dreading it or anything, but at the end of it I was quite into it." When asked about the importance of Indigenous education courses, he said: "I think it's important because it can sort of change people's opinions and perceptions. Help them realize that when they become teachers that they should put this in, cause like I said, it's a huge part of Canada."

Though the majority of teacher candidates self-reported that they were knowledgeable about FNMI histories, cultures, and perspectives, at the end of the course, not all agreed. And though most felt it was important to learn about Indigenous content, through informal conversations during the Aboriginal Education classes some teacher candidates shared that, though they enjoyed the course, they believed it was irrelevant to their professional goals, and struggled to see how Indigenous content would fit into their intended teaching subjects (e.g., physical-education and biology).

Notwithstanding these minority views, most teacher candidates self-reported a positive attitude towards and an interest in Indigenous content. By the end of the course, most felt knowledgeable about Indigenous content. In the section that follows, teacher candidates'

knowledge of and attitude towards the Aboriginal Education course are described from the perspective of five Aboriginal Education course instructors. Their descriptions of teacher candidates' knowledge within the course offers a slightly different perspective than that of most survey respondents.

Course Instructors' Perspectives

All course instructors said that most teacher candidates in the Aboriginal Education course begin with very little knowledge of Indigenous histories, cultures, and perspectives. This perception is consistent with the instructors in other education programs (Blimkie et al., 2014; Dion, 2007; Mashford-Pringle & Nardozi, 2013). Two instructors said that they were initially shocked by teacher candidates' lack of knowledge, and that this awareness had a direct impact on their course design. Paul Cormier, the instructor for the Aboriginal Education course in this study, had this response:

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

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

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

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

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

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

Sandra's example illustrates the type of knowledge that is absent in many teacher candidates'

prior learning and confirms the need for continued integration of Indigenous knowledge and perspectives throughout elementary and secondary school curriculum (Kanu, 2011; TRC, 2015).

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

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

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

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

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

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

This observation resonates with Dion's (2007) finding that teacher candidates often claim they do not know Indigenous people, a stance she called the "perfect stranger" (p. 330). Dion found that within this claim of not knowing, it is also "a response to recognising that what they know is premised on a range of experiences with stereotypical representations" (p. 331).

Teacher candidates arrive at Lakehead University mainly from southern Ontario and northwestern Ontario. During informal conversations and in observations by the first author, it

seemed that although teacher candidates from northern communities surrounding Thunder Bay more easily responded to the instructor's questions and more readily offered examples of current issues facing Indigenous communities (such as lack of housing, clean water, and educational resources), there did not seem to be any noticeable difference in their interest in, or attitudes towards, the course.

Although teacher candidates in this study indicated an increase in knowledge at the end of the Aboriginal Education course, the limitations of an 18-hour course taught over 9 or 12 weeks were expressed by Paul:

> What I try to do is an introduction, because most of them have had no exposure to Aboriginal culture. What I am trying to do is equip them so that when they get to their workplaces they're comfortable with some of the language and they know where to go to find support.

Teachers who are willing to look for support and resources on Indigenous content are more likely to develop culturally appropriate lessons (Tompkins, 1998). Providing facts and knowledge is important, and yet, preparing teacher candidates to find resources and integrate Indigenous content requires that they be open and willing to initiate their own learning (Oskineegish & Berger, 2013; Villegas & Lucas, 2002).

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

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

In addition to teacher candidates' lack of knowledge and need to prepare for ongoing learning, instructors also described resistance amongst some teacher candidates when information about the Canadian education system was in direct conflict with their prior beliefs and experiences. Four of the course instructors described moments in class when they could see teacher candidates struggle with new information that conflicted with their preconceptions of Canada. Lex explained that the "implication that education is a tool of colonialism was really hard for them to wrap their heads around." She said that they were "being confronted with how little they know about the context that's all around them." She attributes this process to "cognitive dissonance," a constructivist theory that in an Indigenous education course can be described as "moments when we suddenly discover that things are not the way we thought they were in the Aboriginal and non-Aboriginal worlds" (Curwen Doige, 1999, p. 387). Lex further explained:

> The term that comes up in scholarship all the time [is] cognitive dissonance; so, suddenly seeing the context all around them, suddenly realizing how little they know was also

> really challenging for them. What does that mean for them? Now they have to contend with this choice, like, how could I have not of known this? And does that make me a bad person? Does that make me racist?

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

Laura learned that there were two essential components to teaching the course. The first was that teacher candidates "were going to come in with a lot of their own questions about why they're taking this class and how was it relevant to them," the second, that "they also were going to be teachers in a system." She learned she would have to make the course personally relevant to teacher candidates as well as prepare them to be teachers. Laura said:

> Here they were meeting an Aboriginal professor, and I wanted some deep dialogue to occur throughout that time we had together, and that took a lot of thinking and reflecting on my part to know how to start to approach that.

Similarly, Sandra said: "I did not want them to begin the course with an attitude of resistance. I wanted the students to give the content a chance, to see the content as interesting and potentially useful." Instructors of the Aboriginal Education course observed that in every class there existed a wide range of knowledge and attitude towards course content, and as a result, she was limited in the types of activities that she could implement, and the depth of knowledge that could be attained in the courses.

Discussion

The purpose of the pre- and post-course surveys was to see what teacher candidates reported to be their knowledge of, and attitude towards, Indigenous content related to the mandatory Aboriginal Education course. What emerged were results that differed somewhat from the opinions and experiences of five individual course instructors and literature on teacher candidates' response to Indigenous education courses in teacher education (Aveling, 2006; Blimkie et al., 2014; Mashford-Pringle & Nardozi, 2013; Tupper, 2011). While the course helped many teacher candidates to feel that they are knowledgeable, and most display an interest and attitude conducive to further learning, the instructors' views confirm that there is far more preparation required in teacher education. Some teacher candidates may not be aware of this.

Teacher candidates may have been noticing a huge increase in their knowledge—an expected outcome for most course experiences—yet the course instructors had a broader view of how much more there is still to learn. Teacher education programs need to be forthright about the limitation of Indigenous education courses in teacher education and the necessity for further training and mentoring as they enter their teaching careers. School boards must also plan for this.

Recognizing that short Indigenous education courses in teacher education programs are insufficient in developing teachers' knowledge and capability, it is necessary that teacher candidates enter their professional practice with a willingness to continue learning. The best of teachers can unintentionally perpetuate further harm and cause conflict with inadequate knowledge and understanding of Indigenous peoples and cultures, or with ideas based on myths and stereotypes (Dion, 2007; St. Denis, 2009). Successful teaching practices are generally attributed to teachers who are open and willing to learn from their Indigenous students and colleagues (Oskineegish & Berger, 2013; Tompkins, 1998). The ideal outcome of teacher preparation is teacher candidates who are open and willing to continue learning and engaging with Indigenous resources, regardless of their perceived level of knowledge (Noordhoff & Kleinfeld, 1993). Findings from the current study suggest that many of the teacher candidates were open to continued learning.

In addition to a mandatory Indigenous education course, Indigenous perspectives and approaches can be provided in other teacher education subjects and courses, Indigenous education workshops could be provided throughout teacher training, and additional qualification courses that will expand the content offered in the mandatory course should be developed and offered to students—and widely promoted where they already exist. Course instructors in this study indicated that the mandatory Aboriginal Education course provided an introduction to the theory and strategies appropriate to Indigenous education and that teacher candidates required more opportunities to extend this introductory knowledge and understanding. If additional qualification courses were designed to expand on the content taught in teacher education, specifically addressing ways that educators can integrate Indigenous histories, cultures, and perspectives into their curriculum development and teaching pedagogy, it may help to address the needs of educators who continue to feel uncomfortable teaching Indigenous content in their professional practice (Higgins et al., 2015; Milne, 2017).

It is also recommended that school boards work in collaboration with teacher education programs to develop and offer educators learning resources and ongoing professional development that respond to educators' developing knowledge, skills, and capabilities. Additional qualification courses on Indigenous education and professional development seminars and workshops may be available to educators in most school boards; however, a coordinated program that brings initial teacher education programs together with professional

development programs may ensure that teachers strengthen their confidence and capability of integrating culturally responsive and appropriate Indigenous perspectives and content.

Conclusion

The findings from teacher candidates and course instructors alike reinforce the call for more learning opportunities, specific to Indigenous content, in teacher education programs. Nardozi and Mashford-Pringle (2014) conclude that presentations or workshops on Indigenous content are not enough to appropriately prepare teacher candidates, recommending that teacher candidates complete a full-year mandatory course. Though not a full-year course, the Aboriginal Education course at Lakehead University offered teacher candidates an 18-hour mandatory course in their teacher preparation, and, in the new 2-year program has doubled in length to 36 hours. This is a step in the right direction but, given where most students start, will still be inadequate. Further research on the impact of integrating Indigenous histories, cultures, and perspectives into all courses in teacher education and on longer stand-alone Indigenous education courses is highly recommended. The findings in this paper suggest the need for further learning opportunities for both teacher candidates and teachers to ensure that elementary and secondary school teachers receive ongoing support to increase their ability to incorporate appropriate and relevant Indigenous content and pedagogy in their teaching practice.

References

Aveling, N. (2006). “Hacking at our very roots”: Rearticulating White racial identity within the context of teacher education. *Race Ethnicity and Education*, *9*(3), 261-274. https://doi.org/10.1080/13613320600807576

Babchuk, N. (1962). The role of the researcher as participant observer and participant-as-observer in the field situation. *Human Organization*, *21*(3), 225-228. https://doi.org/10.17730/humo.21.3.cv621531420405p5

Battiste, M. (2013). *Decolonizing education: Nourishing the learning spirit*. UBC Press.

Belli, G. (2009). Non-experimental quantitative research. In S. D. Lapan & M. T. Quararolli (Eds.), *Research essentials: An introduction to designs and practices* (pp. 59-77). Jossey-Bass.

Blimkie, M., Vetter, D. M., & Haig-Brown, C. (2014). Shifting perspectives and practices: Teacher candidates’ experiences of an Aboriginal infusion in mainstream teacher education. *Brock Education*, *23*(2), 47-66. https://doi.org/10.26522/brocked.v23i2.384

Butler-Kisber, L. (2010). *Qualitative inquiry: Thematic, narrative and arts-informed perspectives*. Sage.

Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (5th ed.). Pearson.

Curwen Doige, L.A. (1999). Beyond cultural differences and similarities: Student teachers encounter Aboriginal children's literature. *Canadian Journal of Education*, *24*(4), 383–397. https://doi.org/10.2307/1585893

DeWalt, K. M., & DeWalt, B. R. (2002). *Participant observation: A guide for fieldworker*s. AltaMira Press.

Dion, S. D. (2007). Disrupting molded images: Identities, responsibilities and relationships—Teacher and Indigenous subject material. *Teaching Education*, *18*(4), 329–342. https://doi.org/10.1080/10476210701687625

Greasley, P. (2008). *Quantitative data analysis using SPSS: An introduction for health and social science*. McGraw-Hill Education.

Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and Evaluation in Counseling and Development*, *34*(3), 177–189. https://doi.org/10.1080/07481756.2002.12069034

Higgins, M., Madden, B., & Korteweg, L. (2015). Witnessing (halted) deconstruction: White teachers' "perfect stranger" position in urban Indigenous education. *Race Ethnicity and Education, 18*(2), 251–276. https://doi.org/10.1080/13613324.2012.759932

Iseke-Barnes, J. M. (2008). Pedagogies for decolonizing. *Canadian Journal of Native Education*, *31*(1), 123–148. https://tinyurl.com/ym759wea

Johnson, R. B., Onwuegbuzi, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, *1*(2), 112–133. https://doi.org/10.1177%2F1558689806298224

Kanu, Y. (2011). *Integrating Aboriginal perspectives into the school curriculum: Purposes, possibilities, and challenges*. University of Toronto Press.

Korteweg, L., & Fiddler, T. (2018). Unlearning colonial identities while engaging in relationality: Settler teachers' education-as-reconciliation. *McGill Journal of Education*, *53*(2), 254–275. http://doi.org/10.7202/1058397ar

Kovach, M. (2009). *Indigenous methodologies: Characteristics, conversations, and context*. University of Toronto Press.

Labone, E., Cavanagh, P., & Long, J. (2014). Critical design features of pre-service education programs to enhance teacher capacity to effectively work in schools with Indigenous students. *The Australian Journal of Indigenous Education*, *43*(2), 121–133. https://doi.org/10.1017/jie.2014.22

Madden, B. (2015). Pedagogical pathways for Indigenous education with/in teacher education. *Teaching and Teacher Education*, *51,* 1–15. https://doi.org/10.1016/j.tate.2015.05.005

Mashford-Pringle, A., & Nardozi, A. G. (2013). Aboriginal knowledge infusion in initial teacher education at the Ontario Institute for Studies in Education at the University of Toronto. *International Indigenous Policy Journal*, *4*(4), 1-19. https://doi.org/10.18584/iipj.2013.4.4.3

McInnes, B. D. (2017). Preparing teachers as allies in Indigenous education: benefits of an American Indian content and pedagogy course. *Teaching Education*, *28*(2), 145-161. https://doi.org/10.1080/10476210.2016.1224831

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Milne, E. (2017). Implementing Indigenous education policy directives in Ontario public schools: Experiences, challenges and successful practices. *The International Indigenous Policy Journal*, *8*(3), 1-20. https://doi.org/10.18584/iipj.2017.8.3.2

Nardi, P. M. (2006). *Doing survey research: A guide to quantitative methods* (2nd ed.). Toronto, ON: Pearson Education.

Nardozi, A., & Mashford-Pringle, A. (2014). Engaging teacher candidates about Aboriginal education perspectives in Ontario. *First Nations Perspectives*, *6*(1), 52-66. https://www.mfnerc.org/wp-content/uploads/2014/10/Engaging-Teacher.pdf

Nardozi, A., Restoule, J. P., Broad, K., Steele, N., & James, U. (2014). Deepening knowledge to inspire action: Including Aboriginal perspectives in teaching practice. *in education, 19*(3), 108-122. Retrieved from http://ineducation.ca/ineducation/article/view/140/636

National Indian Brotherhood/Assembly of First Nations. (1972). *Indian control of Indian education: Policy paper presented to the Minister of Indian Affairs and Northern Development*. https://oneca.com/IndianControlofIndianEducation.pdf

Noordhoff, K., & Kleinfeld, J. (1993). Preparing teachers for multicultural classrooms. *Teaching and Teacher Education*, *9*(1), 27-39. https://doi.org/10.1016/0742-051X(93)90013-7

Onwuegbuzie, A. J., & Combs, J. P. (2010). Emergent data analysis techniques in mixed methods research: A synthesis. In A. Tashakkori & C. Teddlie (Eds.), SAGE handbook of mixed methods in social and behavioral research (2nd ed., pp. 397-430). Sage.

Oskineegish, M. (2020). Exploring instructional strategies in an Indigenous education course in initial teacher education. *Alberta Journal of Educational Research*, *66*(3), 230-249. https://journalhosting.ucalgary.ca/index.php/ajer/article/view/56709

Oskineegish, M., & Berger, P. (2013). The role of the non-Native teacher in remote First Nations communities in northern Ontario. *Canadian Journal of Native Education, 36*(1), 113-125.

Regan, P. (2011). *Unsettling the settler within: Indian Residential Schools, truth telling, and reconciliation in Canada*. UBC Press.

Savin-Baden, M., & Major, C. H. (2013). *Qualitative research: The essential guide to theory and practice*. Routledge.

Scully, A. (2012). Decolonization, reinhabitation and reconciliation: Aboriginal and place-based education. *Canadian Journal of Environmental Education*, *17*, 148-158. https://cjee.lakeheadu.ca/article/view/1113

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*, 63-75. https://doi.org/10.3233/EFI-2004-22201

St. Denis, V. (2009). Rethinking cultural theory in Aboriginal education. In C. Levine-Rasky (Ed.), *Canadian perspectives on the sociology of education* (pp. 163-182). Oxford University Press.

Tashakkori, A., & Teddlie, C. (Eds.). (2010). *SAGE handbook of mixed methods in social & behavioral research* (2nd ed.). Sage.

Tompkins, J. (1998). *Teaching in a cold and windy place.* University of Toronto Press.

Truth and Reconciliation Commission of Canada. (2015). *Truth and Reconciliation Commission of Canada: Calls to action*. http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf

Tupper, J. (2011). Disrupting ignorance and settler identities: The challenges of preparing beginning teachers for treaty education. *in education*, *17*(3), 38-55. https://ineducation.ca/ineducation/article/view/71/0

Vetter, D. M., & Blimkie, M. (2011). Learning to teach in culturally responsive and respectful ways: The first steps in creating a First Nation, Métis and Inuit education infusion in a mainstream teacher education program. *The Canadian Journal of Native Studies*, *31*(2), 173-185.

Villegas, A. M., & Lucas, T. (2002). The culturally responsive teacher. *Educational Leadership*, *64*(6), 28-33.