

Shifting Perspectives and Practices: Teacher Candidates' Experiences of an Aboriginal Infusion in Mainstream Teacher Education

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Abstract

This exploratory case study shares teacher candidates' perspectives and experiences of an Aboriginal infusion at York University's Faculty of Education field site in Barrie, Ontario. For this initiative, Aboriginal content and pedagogies were infused throughout placements and courses of the mainstream teacher education program. Teacher candidates shared that the Infusion prepared them to teach Aboriginal content in culturally respectful and meaningful ways by providing them with a foundation to build on and helping them to develop teaching practices inclusive of diverse ways of knowing and being in the world. These findings may be useful to other educators developing and implementing their own infusion initiatives.

Keywords: Aboriginal Infusion, mainstream teacher education, teacher candidate learning journeys

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Fill a large glass bowl with water. Let the water represent the standard curriculum in Canadian teacher education. Notice the clarity. Now throw in a few dried beans. They represent the inclusion of Aboriginal content within existing curriculum. They change the situation minimally. The water filling the bowl remains generally unaffected. While there is always hope that one of these beans will germinate and create more change, they have been dried for a long time. Now move to the “add a little and stir” approach and see what happens to the water with a few drops of red food colouring. Watch as the colour spreads in a pattern and then dissipates. Overall, a little tint perhaps, but barely visible to the naked eye. Now add enough red food colouring to infuse the entire body of water, the entire curriculum. See the red swirl and shimmer throughout the bowl. See that the bowl is now filled with red water. This is what we mean by infusion¹. This is what happens to curriculum when you take seriously Indigenous Thought and its power to transform our teaching and learning practices.

Introduction

In 2008, the Aboriginal² Infusion initiative (*Infusion*) was launched as part of the mainstream teacher education program at York University’s Faculty of Education field site in Barrie, Ontario (the Barrie Site). This initiative involved infusing Aboriginal content and pedagogies in each of the required education courses and placements through academic readings, films, assignments and assessments, field trips, guest speakers, and everyday teaching practices. The goal was not for teacher candidates to become “experts” on Aboriginal education, but rather to provide a space to engage in learning of Aboriginal perspectives and pedagogies and to develop respectful relationships with Aboriginal people in order to assist teacher candidates in responding to the specific needs and interests of Aboriginal students in their classrooms while facilitating meaningful learning for all students. This paper shares the findings of our exploratory case study³ that investigated teacher candidates’ perspectives and experiences of the *Infusion*. The findings will be used to support present and future development and implementation of the *Infusion*. We hope sharing what we have learned may assist other education programs across the faculty, province, and elsewhere to consider developing and implementing their own infusion initiatives in mainstream teacher education.

Why Infusion? Why Now?

We see our work building on previous efforts to address infusion. One work in particular that resonates with the *Infusion* goals is Gay’s (1997) “dual infusion strategy,” which she proposed over 15 years ago for addressing multiculturalism in teacher education. The dual infusion strategy involved weaving multicultural perspectives and pedagogies “throughout all the foundational cores and areas of concentration offered, as well as being a distinct and visible area of specialization” (Gay, 1997, p. 160). Building on her earlier work, Gay (2010) proposed a theory of “multidimensional culturally responsive teaching” which “encompasses curriculum content, learning context, classroom climate, student-teacher relationships, instructional techniques, classroom management and performance assessments” (p. 33). While our infusion approach had an Aboriginal focus, at the core was the belief that understanding Canada’s

contemporary and historical relations with Aboriginal people is fundamental to creating respectful relations that may lead to enhanced well-being and academic success for all students.

At the Barrie Site, the process of formally developing the *Infusion* began in 2007-2008. After observing over a number of years that many teacher candidates had only a limited understanding of Aboriginal people and perspectives, a former site lead, along with local First Nation and Métis community members and educators identified a need for infusing Aboriginal content in the mainstream teacher education program. Concurrently, the Ontario Ministry of Education (2007) released the *First Nation, Métis, and Inuit Education Policy Framework* identifying Aboriginal education as a key priority and acknowledging the need “to close the gap between Aboriginal and non-Aboriginal students” (p. 5). It recognized teachers’ lack of knowledge and understanding of Aboriginal cultures and pedagogies as an overriding issue that impacts student success. Dion (2007) has argued, “one way or another, teachers, like many Canadians, claim the position of ‘perfect stranger’ to Aboriginal people” (p. 330). This position is informed by what teachers do not know and refuse to know as well as by what they do know, which is often based on stereotypes and misunderstandings. Meaningful opportunities for developing understanding are needed for pre-service and in-service teachers.

While Aboriginal teacher education programs began in the late 1960s/early 1970s in Canada (Grant, 1995), a focus on Aboriginal education is relatively new to mainstream teacher education. In 2010, the Association of Canadian Deans of Education signed an *Accord on Indigenous Education*, which made explicit the importance for all educators to have opportunities to develop their understanding and to incorporate Aboriginal content and pedagogies in their teaching. The Ontario Ministry of Education (2007) also encouraged education faculties to better prepare teachers to teach Aboriginal perspectives. Within the Canadian context, offering a course (mandatory or elective) on Aboriginal education in mainstream teacher education has been one approach to developing teachers’ knowledge. At the Barrie Site, we have worked toward accomplishing this goal by infusing Aboriginal content and pedagogies in every course; offering a specific course on Aboriginal education (beginning in 2009-2010); and coordinating a 5-day Aboriginal education placement at educational sites across Canada (See Vetter & Blimkie, 2011 for discussion on specific *Infusion* objectives).

The Barrie Site team launched the *Infusion* in collaboration with the Faculty of Education at York University, Simcoe County school boards, and local Aboriginal educators and community members in the fall of 2008. Willingness of course directors and the site lead to engage with a new orientation to the program, support of a tenure-stream faculty member with experience in a variety of Aboriginal educational contexts, and selection of Aboriginal teaching assistants and contract faculty were integral to developing and implementing the *Infusion*. Moreover, the *Infusion* would not have been possible without the support of our Aboriginal partners, who continue to generously share their knowledge and experience and provide ongoing guidance. We are mindful that doing the *Infusion* in meaningful ways in mainstream teacher education is rooted in the difficult tasks for current and future educators –both faculty and teacher candidates– of creating and maintaining honest, respectful, and supportive relationships with Aboriginal people and communities based in knowledge of local protocols.

Case Study Research

Following an exploratory case study approach (Creswell, 2007; Merriam, 1998), we investigated teacher candidates' perceptions and experiences of the 2009-2010 *Infusion*, which had 48 teacher candidates (1 self-identified as Métis and 1 self-identified as First Nation). Creswell (2007) defines case study research as:

A qualitative approach in which the investigator explores a bounded system (a *case*) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving *multiple sources of information* (e.g., observations, interviews, audiovisual material, and documents and reports) and reports a case *description* and case-based themes. (p. 73)

Our case study took place over 10 months and used questionnaires, focus groups, course syllabi, student assignments, university and ministry policies, reflective research journals, and fieldnotes as sources of information.

We developed a questionnaire consisting of open- and close-ended questions with input from a school board statistician. All 48 teacher candidates in the *Infusion* were invited to complete the first anonymous questionnaire in September 2009 at the beginning of their program and the second anonymous questionnaire in May 2010 at the end of their program. Thirty teacher candidates completed the September Questionnaire (62.5% response rate) while 44 teacher candidates completed the May Questionnaire (91.7% response rate)⁴. To ensure there would be no influence on grading, the consent letters stated that completed questionnaires would be sealed in envelopes and locked in a filing cabinet until after graduation. After all grades were posted, two small focus groups were conducted with 10 teacher candidates in June 2010. Then the authors retrieved the questionnaires and transcribed the audio-taped focus groups. We approached the data holistically (Bogdan & Biklen, 2007). By reading the data repeatedly, we identified themes and sorted the data into categories which were revised throughout analysis.

Learning Journeys: The Circle in Indigenous Thought

Through our work with Aboriginal partners, the concept of holism became central to developing the *Infusion* and understanding teacher candidates' learning journeys. In Indigenous Thought, understanding that everything is interconnected is referred to as holism. This way of knowing the world is derived from "generations and generations of knowledge and practice on the land" (LaDuke, 1997, p. 24). As LaDuke (1997) explains, "Much in nature is cyclical: the movements of moons, the tides, the seasons, our bodies. Time itself, in most indigenous worldviews, is cyclical" (p. 25).

For Archibald (2008) "an Indigenous philosophical concept of holism refers to the interrelatedness between the intellectual, spiritual (metaphysical values and beliefs and the Creator), emotional, and physical (body and behavior/action) realms to form a whole healthy person" (p. 11). A circle is often used to illustrate the concept of holism with each interrelated realm (spiritual, emotional, physical, and intellectual) associated with one of the four cardinal directions (Archibald, 2008; Calliou, 1995). The circle teaches that these realms are fluid and ever-evolving and therefore cannot be strictly confined within linear boundaries (Graveline,

1998). While cultural differences exist within and between Aboriginal communities regarding the circle, a common goal is working toward balance and harmony so that no one realm is privileged over another (Archibald, 2008).

Just as the circle in Indigenous Thought teaches that learning is never-ending, as a conceptual framework it offers endless possibilities for understanding phenomena. Ahnisenabae artist Roy Thomas (c.2001) shares a cyclical view of journeying in his “Time and Life” art series, stating that where you are going always exists in relation to where you come from, where you have been, and where you are now. This holistic approach to journeying frames our analysis of teacher candidates’ *Infusion* learning journeys (see Figure 1).

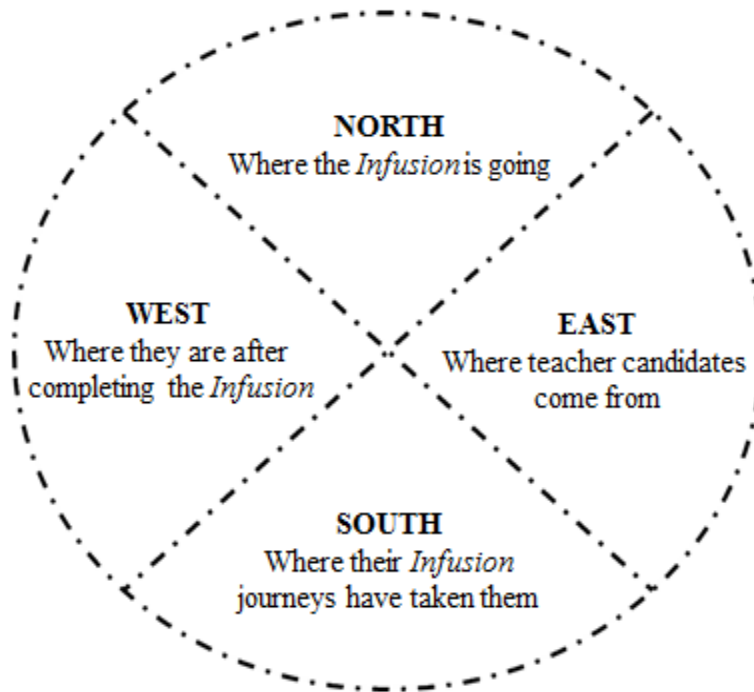


Figure 1. A conceptual framework for understanding teacher candidates’ perspectives and experiences of the *Infusion*.

We begin in the east by looking at where teacher candidates come from, in particular their initial reactions to the *Infusion*. We continue in the south by recounting where their journeys have taken them—their shifting understandings, relationships, and experiences. We carry on in the west by sharing where they locate themselves after completing the program, particularly in terms of their knowledge, teaching practices, and persisting concerns. We conclude for the time being in the north by reflecting on the implications of these findings and return to our vision as we consider where the *Infusion* is going in its next iteration.

Findings and Reflections

East – Where We Come From

At the Barrie Site, most teacher candidates had little or no background in Aboriginal studies before beginning the program. Since the *Infusion* was not advertised prior to admission, teacher candidates did not volunteer to be part of it. They learned about it for the first time during a spring orientation. In early meetings, several teacher candidates openly self-assessed as having very little or no knowledge of and no experiences with Aboriginal people. These comments are supported in teacher candidates' ratings on the September 2009 questionnaire (see Table 1).

Table 1.

Teacher Candidates' (N=30) Responses to the Statement "I have an understanding of First Nation, Métis, and Inuit."

| Content Areas | Rating Scale | | | | |
|----------------|-------------------|------------|----------------------------|------------|----------------|
| | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree |
| History | 2 (6.7%) | 12 (40%) | 8 (26.7%) | 7 (23.3%) | 1 (3.3%) |
| Culture | 4 (13.3%) | 14 (46.7%) | 7 (23.3%) | 4 (13.3%) | 1 (3.3%) |
| Current issues | 1 (3.3%) | 8 (26.7%) | 7 (23.3%) | 13 (43.3%) | 1 (3.3%) |
| Community | 4 (13.3%) | 14 (46.7%) | 8 (26.7%) | 4 (13.3%) | 0 (0%) |

Other researchers (e.g., Battiste, 2010; Dion 2007, 2009; Tupper, 2011) have remarked that pre-service and in-service teachers' understandings of Aboriginal people and perspectives in the Canadian context are limited. One content area where Barrie Site teacher candidates stated they had some understanding was current issues. It is important to note that these findings describe teacher candidates' perceived understanding, and do not probe the sources or extent of their knowledge.

Many teacher candidates expressed interest in learning about Aboriginal people and perspectives in their program. Over 75% either agreed or strongly agreed that they were very interested in the *Infusion*. We acknowledge that once teacher candidates knew about the *Infusion*, a "yes" factor may have been at play in their responses (i.e., they may have felt they *should* be interested). In open-ended questions, some teacher candidates indicated a belief that the *Infusion* would develop their learning on a topic they deemed important for all Canadians to understand. One wrote:

Anything that helps me/people to learn about others and things we do not currently know or have experience first-hand is a bonus and helps us to see things from others' perspectives. We are learning to be teachers and will have the influence to be able to

bring Aboriginal content into classrooms to make future citizens more aware. (September 2009 Questionnaire, Participant 25)

A few anticipated that the *Infusion* would assist them in responding to the diverse needs of all students. Another stated, “The *Infusion* is an excellent opportunity to familiarize ourselves with our own history as well as get exposure to topics of diversity and how to approach them in a classroom” (September 2009 Questionnaire, Participant 17).

While many Barrie Site teacher candidates stated their interest in the *Infusion*, some shared their concern that other important topics would be omitted from their program as a result of the *Infusion*. One articulated a concern voiced by many stating, “It is important that not too much time is spent on the *Infusion*. Sometimes we feel we are not learning enough about teaching strategies and subjects that we need to teach in our classrooms every day” (September 2009 Questionnaire, Participant 5). Sharing another concern, one teacher candidate remarked, “I think that learning about inclusive classrooms should incorporate Aboriginal topics. Singling it out in a course excludes other cultures and children that may have needs as well” (September 2009 Questionnaire, Participant 7). Despite our statement that *Infusion* learnings, in keeping with the respectful approaches that characterize Indigenous Thought, will guide these future teachers to create classrooms accepting of all cultures and ways of knowing, some teacher candidates perceived that the *Infusion* solely supported the learning of Aboriginal students.

A few teacher candidates explicitly disapproved of the *Infusion* with 10% either disagreeing or strongly disagreeing that they were very interested in it. One argued:

I think there are other focus areas that would help me more as a teacher – special education, diversity in general. Not saying Aboriginal topics are not important, but I think there are other focus areas that could help more students as a whole. (September 2009 Questionnaire, Participant 27)

In June focus group sessions, teacher candidates commented that at the beginning of the year they heard some of their cohort ask questions such as: “Why Aboriginal students above any other group?” “Why are you not bringing more multiculturalism into the program?” Recalling initial reactions, one teacher candidate shared:

Let’s be honest. At the beginning of the year, the focus on Aboriginal integration into the classroom and the Aboriginal placement seemed to be met with a lot of negative responses and inappropriate comments. (June 2010 Focus Group 1, Participant 3)

For many of the teacher candidates, participating in the *Infusion* exposed them to stories about Canada that conflicted with what they had been taught (in school and other places) and what they strongly believed to be true. It also exposed them to ways of knowing and seeing the world that were new to them (even though Indigenous knowledge has existed since time immemorial) and at times challenged their understandings.

Speaking about the challenge of addressing similar resistance to that experienced by the Barrie Site, Battiste (2010) states:

The initial educational struggle for Indigenous educators, then, has been to sensitize the Eurocentric consciousness in general, and educators in particular, to the colonial and neo-colonial practices that continue to marginalize and racialize Indigenous students. This does not come easily to Eurocentric-educated White people, for it requires their unlearning as well – challenging their meritocracy and superiority myths to learn how their privileges were constructed and maintained in a racist society. (p. 17)

South – Where We Have Been

Indigenous educators (e.g., del Carmen Rodriguez de France, 2011; Dion, 2007, 2009; Graveline, 1998; Iseke-Barnes, 2008) who teach Aboriginal education to predominately non-Aboriginal pre-service and in-service teachers in the Canadian context have commented that they often encounter initial resistance. However, throughout their courses students' perspectives shifted. Teacher candidates at the Barrie Site noticed similar shifting perspectives. One shared, "I think that some teacher candidates might have started out with narrow mindedness and negativity, but the experience of the yearlong *Infusion*, turned into something really positive for them" (June 2010 Focus Group 1, Participant 3).

Reflecting on their awareness and understanding, several teacher candidates commented that the *Infusion*, "helped me to better understand issues that I did not realize existed" (May 2010 Questionnaire, Participant 5). Many also began to question their prior knowledge and beliefs. One teacher candidate remarked:

I remember feeling surprised and shocked that I didn't know as much as I thought I did. I think part of it was because I've been educated in the area of whoever's agenda it is...I guess you think that Canada is a free country. That everyone is so happy and we don't really have any dirt, but there's a ton of dirt here that we don't talk about it. (June 2010 Focus Group 2, Participant 2)

Others shared that they became more aware of the perspectives from which information is presented. One stated "the *Infusion* opened my eyes to see whose voice is being heard" (May 2010 Questionnaire, Participant 42). Another observed that prior to the *Infusion* "many of us had only seen Aboriginal people from the history book point of view" (June 2010 Focus Group 2, Participant 2). Smith (1999) defines history as "the story of the powerful and how they became powerful, and then how they use their power to keep them in positions in which they can continue to dominate others" (p. 34). It is not surprising that stories of Canada's colonial past and present are kept hidden from students.

On the May 2010 questionnaire and during the June 2010 focus groups, many teacher candidates remarked that interacting with Aboriginal people and communities throughout the *Infusion* was very significant in shifting their perspectives and developing understanding. One shared, "A guest speaker's story of residential schooling was when my thinking shifted. I had no idea about residential schools and the extent to which it went on and the impact on the generations" (June 2010 Focus Group 1, Participant 4). Echoing the sentiments of several others, one teacher candidate stated listening to and connecting with Aboriginal people "changed how I thought" (June 2010 Focus Group 1, Participant 4). Attending local Aboriginal

cultural/education events was another impactful learning experience. Almost everyone emphasized the significance of learning from and developing relationships with Aboriginal people and communities during their Aboriginal placements, which were described as rich, educational, and life-changing. One teacher candidate reflected, “I was very skeptical of the Aboriginal placement but it truly was an amazing experience that made me grow as a person” (May 2010 Questionnaire, Participant 25). A number of teacher candidates stated they would have liked to spend more time in local Aboriginal communities and recommended that happen in the future.

West – Where We Are Now

Developing core knowledge and implications for teaching. After completing the *Infusion*, teacher candidates were once again asked to rate their understanding (see Table 2, Table 3, and Table 4).

Table 2. Teacher Candidates' (N=44) Ratings of Their Understanding of First Nations

| Content Areas | Rating Scale | | | | | |
|----------------|--------------|------------|------------|-----------|-----------------|----------|
| | Limited | Basic | Concrete | Extensive | Did not respond | Spoiled |
| Histories | 3 (6.8%) | 23 (52.3%) | 15 (34.1%) | 2 (4.5%) | 0 (0%) | 1 (2.3%) |
| Cultures | 1 (2.3%) | 23 (52.3%) | 17 (38.6%) | 1 (2.3%) | 1 (2.3%) | 1 (2.3%) |
| Current issues | 3 (6.8%) | 18 (40.9%) | 21 (47.7%) | 2 (4.5%) | 0 (0%) | 0 (0%) |
| Communities | 2 (4.5%) | 25 (56.8%) | 15 (34.1%) | 2 (4.5%) | 0 (0%) | 0 (0%) |

Table 3. Teacher Candidates' (N=44) Ratings of Their Understanding of Métis

| Content Areas | Rating Scale | | | | | |
|----------------|--------------|------------|-----------|-----------|-----------------|----------|
| | Limited | Basic | Concrete | Extensive | Did not respond | Spoiled |
| Histories | 15 (34.1%) | 18 (40.9%) | 8 (18.2%) | 1 (2.3%) | 1 (2.3%) | 1 (2.3%) |
| Cultures | 10 (22.7%) | 27 (61.4%) | 5 (11.4%) | 1 (2.3%) | 1 (2.3%) | 0 (0%) |
| Current issues | 16 (36.4%) | 18 (40.9%) | 8 (18.2%) | 1 (2.3%) | 1 (2.3%) | 0 (0%) |
| Communities | 15 (34.1%) | 23 (52.3%) | 4 (9.1%) | 1 (2.3%) | 1 (2.3%) | 0 (0%) |

Table 4

Teacher Candidates' (N=44) Ratings of Their Understanding of Inuit

| Content Area | Rating Scale | | | | | |
|----------------|--------------|------------|-----------|-----------|-----------------|----------|
| | Limited | Basic | Concrete | Extensive | Did not respond | Spoiled |
| Histories | 16 (36.4%) | 28 (45.5%) | 6 (13.6%) | 0 (0%) | 1 (2.3%) | 1 (2.3%) |
| Cultures | 17 (38.6%) | 21 (47.7%) | 4 (9.1%) | 0 (0%) | 1 (2.3%) | 1 (2.3%) |
| Current issues | 17 (38.6%) | 21 (47.7%) | 3 (6.8%) | 0 (0%) | 1 (2.3%) | 2 (4.5%) |
| Communities | 16 (36.4%) | 22 (50%) | 4 (9.1%) | 0 (0%) | 1 (2.3%) | 1 (2.3%) |

In the May 2010 questionnaire's open-ended response section, a number of teacher candidates wrote that, while they had learned a considerable amount about Aboriginal people and perspectives, they recognized they still had a lot to learn (especially related to understanding Métis and Inuit perspectives). Several found that the *Infusion* focused mainly on First Nation content and pedagogies and recommended a more balanced focus. Teacher candidates reiterated that they did not consider themselves experts. These views appear to be reflected in their ratings on the May 2010 questionnaire, as very few rated their understanding as extensive. Rather, several commented that they had developed core knowledge that would assist them in their teaching. One teacher candidate said, "The *Infusion* prepared me to be a lifelong learner, who considers the needs of all the students in my classroom" (May 2010 Questionnaire, Participant 44).

Teacher candidates also rated their understanding of teaching Aboriginal content and students (see Figure 2 and Figure 3).

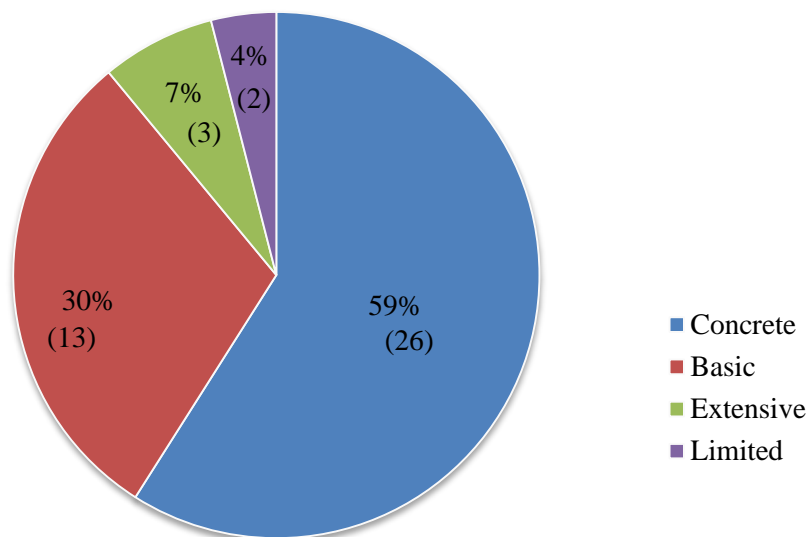


Figure 2.

Teacher candidates' ratings of their understanding of teaching in a classroom that includes Aboriginal students.

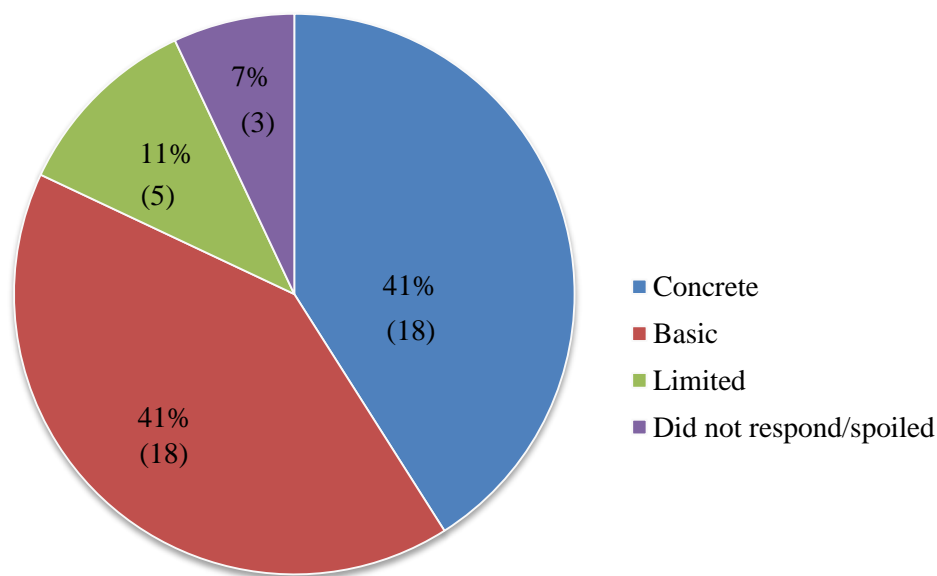


Figure 3. Teacher candidates' ratings of their understanding of Aboriginal content.

Over 80% of respondents felt they had developed at least a basic understanding of teaching Aboriginal content and over 95% had developed at least a basic understanding of teaching a class that includes Aboriginal students. In the end of year research (i.e., questionnaires and focus groups), teacher candidates shared the following guiding principles for teaching Aboriginal content in culturally respectful and meaningful ways:

- *Teach in context.* In contrast to the common teaching practice of focusing solely on Aboriginal history or teaching current issues without context, teacher candidates spoke about always making connections between current issues and past events.
- *Create space for alternate perspectives.* Teacher candidates made a conscious effort to create spaces for perspectives that are often overlooked, ignored, or hidden.
- *Use resources responsibly.* Teacher candidates valued using teaching materials and resources developed by or at least in consultation with Aboriginal people. Many emphasized that “Aboriginal students should not be used as the ‘go to’ expert” (May 2010 Questionnaire, Participant 33) and teachers should not assume that all Aboriginal students are experts on their cultures and histories.
- *Recognize diversity of histories and teachings.* Teacher candidates spoke about learning not to generalize the experiences and teachings of one Aboriginal community, as diversity exists within and between Aboriginal peoples and communities. They stressed the importance of “being sensitive to student histories and experiences and ensuring that you do not sound like the expert on another person’s life” (May 2010 Questionnaire, Participant 5).
- *Understand that “not knowing” is an opportunity for learning.* This awareness places what some might see as a heavy responsibility on teachers for learning or, more appropriately, finding creative ways to learn with students, an issue that we will revisit in the discussion of challenges to infusing Aboriginal content. Too often, teachers do not want to admit “not knowing” to their students and may as Dion (2007) has pointed out, move to the position of “perfect stranger” as justification for avoiding Aboriginal content and pedagogies in their classes.
- *Move from inclusion to infusion.* Understanding that Aboriginal content should not been seen as an “add-on” to the curriculum, several indicated that they did try to move beyond including to infusing. One teacher candidate shared:

For procedural writing [Language Arts], I had the students watch a First Nations clip on the computer about games and had them write the procedure. I tried to pull Aboriginal content into different pieces, to pull little bits and pieces where I could. I could have done a procedural piece about tying shoelaces but I thought First Nations games would be more interesting. (June 2010 Focus Group 1, Participant 5)

Other examples of moving from including to infusing were modeling classroom rules around the Seven Grandfather Teachings and using the Medicine Wheel to design assessments.

In reviewing our data, the need to make explicit the distinction between inclusion and infusion has become apparent. While the teacher candidates in the above examples clearly understand what it means to infuse Aboriginal perspectives into the curriculum, our May 2010 questionnaire was not refined enough to distinguish between those who infused Aboriginal content and pedagogies regularly and those who dropped a few “beans” into the mix. In response to our questions, over 75% of teacher candidates indicated they had incorporated Aboriginal content at least one or two times throughout their teaching placement and over 40% had incorporated it three or more times. Considering that teacher candidates must often fit their

teaching into their associate teachers' agendas, these results show strong commitment to infusion.

In a related study, Kanu (2011) investigated integration of Aboriginal content by English and/or social studies high school teachers in Winnipeg, Manitoba. For these teachers, identified by colleagues as integrating Aboriginal content, Kanu (2011) concluded that integration was perceived as "occasionally adding Aboriginal perspectives, where convenient, to a curriculum that remained largely Eurocentric" (p. 173). Studying integration of Aboriginal content in science education Aikenhead and Huntley (1999) found teachers did not integrate it, but rather added a "token" amount to the existing curriculum. Clearly these interventions do not reflect our notion of infusion, as our intention in the *Infusion* is that teachers will move beyond the "add and stir" mix to actual transformation of practices and content in their everyday work.

Encountering challenges. Challenges to infusing Aboriginal content into the daily practice of the Barrie Site teacher candidates were evident in the responses of almost all participants. However, a small minority ($n=10$), did not include Aboriginal content in their teaching placements, citing lack of time, knowledge, cultural authority, and other teaching priorities as impeding factors. One shared, "At this point, I would not be sure how to approach the *Infusion* in my teaching. I don't feel comfortable about my knowledge surrounding it" (May 2010 Questionnaire, Participant 39). Another stated, "I have limited time to include Aboriginal content. There are other topics to cover and keep covered" (May 2010 Questionnaire, Participant 22).

Some teacher candidates claimed that they would have liked to learn more practical strategies, a "step-by-step" guide, for infusing Aboriginal content in their teaching across multiple subject areas. While this attitude runs counter to the creativity needed to do a thorough job of infusing Indigenous Thought into the curriculum, it is also a recurring theme for many teacher candidates who see technical advice (e.g., lesson plans, classroom management) as the main factors necessary for their success as teachers. A number conveyed their concerns about making mistakes and unintentionally causing harm as they included Aboriginal content. This uncertainty is voiced in one teacher candidate's statement:

I worry about whether I am going to get it right and not be offensive. Because I don't think any of us would do something deliberately to be offensive, but there's a certain sensitivity and I don't know very much still. What if I get it wrong? (June 2010 Focus Group 1, Participant 1)

Making and admitting mistakes are important aspects of being good teachers. For the most part, the effort to include Aboriginal perspectives is an important—although never sufficient—step to infusion. Some teacher candidates shared that they were apprehensive about doing infusion in their classrooms because as non-Aboriginal people they felt they lacked credibility and authority to teach Aboriginal content.

As we reflect on these teacher candidates' perceived lack of knowledge and accompanying concern about not having "the right" to teach Aboriginal perspectives because they are not Aboriginal, we find ourselves concurring with several other scholars' observations. Kanu (2011), reflecting on her study mentioned above, states:

An important question arising from these data, however, is whether the dominant-culture teachers' lack of knowledge was simply a passive lack of information or, in part, an active resistance to the difficult knowledge of cultural differences arising routinely in educational encounters between white, middle-class, Euro-Canadian teachers and their ethnic minority culture students such as Aboriginal students. (p. 177)

Tupper (2011) has also discussed University of Saskatchewan student teachers' concerns about their lack of knowledge of how to implement treaty education, which is mandatory for all students in all grades and subjects in Saskatchewan. Tupper (2011) acknowledges that students "are always grappling with the question of how [to teach]" (p. 47). In response to the statement that no one had taught them how to teach treaty education, Tupper (2011) argues:

Students' claims of not knowing how to implement treaty education, or the fear of making a mistake, suggests that ignorance is used as an epistemological position to protect their settler identities and to divest themselves of the responsibility to meaningfully engage with treaties and the treaty relationship. (p. 47-48)

Another challenge that contributed to Barrie Site teacher candidates' hesitation to share their *Infusion* learnings was their fear of other people's reactions. One teacher candidate explained:

I find that with that information I'm very cautious of when I bring it up and how I say it ... There's a lot of people I know, even though they may be open to educating people, they have very strong beliefs. Sometimes I bring it up and it's received well and sometimes it gets to a point that I might be having an argument with someone I'm close to. (June 2010 Focus Group 2, Participant 3)

Teachers participating in Kanu's (2011) study also shared that they felt professionally vulnerable and isolated for including Aboriginal content in their courses. Despite the challenge, for some Barrie Site teacher candidates these reactions highlighted the need for education on Aboriginal perspectives. Teacher candidates remarked:

The *Infusion* is essential for building Canadian community. It adds a current and essential component to teacher education and creates a knowledge base and awareness in new teachers. This is where large amounts of change begin. (May 2010 Questionnaire, Participant 24)

The *Infusion* is great to have for educators, but you wish that everybody in Canada could have that kind of education, because I definitely didn't get it in high school. Maybe if we received this education at a younger age, we'd be more open to what's going on rather than having stereotypes about Aboriginal people. (June 2010 Focus Group 2, Participant 3)

Despite this very thoughtful feedback, at the end of the *Infusion*, some resistance persisted. A few teacher candidates insisted on repeating questions that began the year. One

teacher candidate said, “The *Infusion* has been somewhat frustrating because I was not sure why we were having it when there are so many different ethnicities within some classrooms” (May 2010 Questionnaire, Participant 18). With regard to the mandatory Aboriginal education course, one teacher candidate commented:

Not denouncing the importance of the issue, but you would have to incorporate Aboriginal with other backgrounds and call it a cultural diversity course. Then it would have enough strength to be a mandatory course. But now you lose one course somewhere else and is that one not important? How much is too much time? (June 2010 Focus Group 2, Participant 3)

In response to concerns that the program did not focus an adequate amount of time on multiculturalism, one teacher candidate recommended:

My own personal opinion is that maybe you should bring multiculturalism in a little bit more – do a tie in with the *Infusion*. Mention at the beginning that we will be doing an assignment tying one into the other. To bring it together may settle up those defiant people who say, ‘Why are we so focused on just Aboriginal?’ (June 2010 Focus Group 1, Participant 2)⁵

All of these challenges and concerns merit serious consideration, as clearly they hinder the infusion efforts of some teacher candidates. However, after completing the program, only a couple of teacher candidates expressed their absolute disagreement with the *Infusion*. Shifts in thinking and practice take time. The impact of the *Infusion* on teacher candidates’ pedagogy may take many months or years, and some may never move to understanding its importance.

Ripple effects of the *Infusion*. In the previous section, we have seen some teacher candidates expressing concerns that the *Infusion* did not focus adequately on multiculturalism. At the same time, a significant finding of this research is that teacher candidates’ *Infusion* learnings, in particular the focus on respect for all our relations in Indigenous Thought, helped them develop inclusive classrooms. A ripple effect of the *Infusion* is that a number remarked that it helped them develop teaching practices that were respectful of and responsive to Aboriginal students and those from other diverse cultures. We quote extensively from one teacher candidate who exemplifies one of the major outcomes for which we strive. Reflecting on the ways the *Infusion* learnings assisted in her teaching, she shared:

The course directors kept saying what’s good for Aboriginal students is good for all and we kept hearing it through the course but you couldn’t really make the connection. And then, near the end of the program, I was teaching traditions and cultures in Grade 2. We had a girl in our class who is from India and her mother came into the class to speak about India. It was wonderful to have some inside information about the Indian culture. I continued the learning/teaching on India over the next two social studies periods. The last class I introduced Mehdhi (designs drawn on the hands and feet) and Rangolis (floor painting to welcome). When teaching and designing this lesson what I learned about Aboriginal cultures came to me. Teaching about another culture, I took extra effort to

teach the culture with respect. I did not claim to know all the answers and I also did not draw upon my Indian student as an expert. She did volunteer a lot of information and corrected my pronunciation, which was welcomed. I did talk to the students about how various cultural traditions overlap with other cultures and the traditional values are sometimes lost...What I learned from the *Infusion* was good for everyone. I learned to be more culturally aware, sensitive, inquisitive, and respectful. (June 2010 Focus Group 2, Participant 5)

Additional comments from others support this deepening understanding of the implications of the *Infusion* and seemingly contradict the minority who felt multiculturalism needed a more explicit focus. One teacher candidate remarked, “The *Infusion* not only brought awareness to Aboriginal people, but I can apply that understanding to other groups of people as well. I can take so much of the *Infusion* into multiculturalism” (June 2010 Focus Group 1, Participant 2). Several teachers also commented that the *Infusion* deepened their understanding of inclusive classroom environments and helped them develop a greater appreciation for differentiated instruction⁶ as important to supporting learning of all students.

North – Where We Are Going

The *Infusion* at the Barrie Site of York University’s Faculty of Education continues into the 2014-2015 academic year even in times of tightening budgets and shifting priorities in post-secondary education. It is now part of the official publicity for the site. Personnel changes; teacher candidates come and go; but our commitment to infusing Aboriginal perspectives and pedagogies persists.

If the teacher candidates have taught us anything from their contributions to this exploratory case study, it is that what we are doing is an important step but not enough to counter the enduring attitudes instilled in Canadian citizens through our schooling. Canada’s origins lie within Aboriginal nations and their lands and as treaty people, we live inescapably in relation to one another. Understanding Canada’s contemporary and historical relations with Aboriginal people is fundamental to developing respectful relations which we believe will contribute to enhancing well-being and academic success for all students. It is our hope that this one program at the Barrie Site will eventually be seen as a pilot project that influences the entire Faculty of Education in all its programming.

We see the shifting landscape across Canada, which is increasingly dedicated to ensuring Indigenous Thought is part of every Faculty of Education. Sometimes the commitment takes the form of a required course, sometimes, more than that. We hope that our Faculty and others will honour the intent of the *Accord on Indigenous Education* (2010) – that it will be more than a document. At the same time, we know that education accords and policy documents can only go so far. The teachers in each classroom and the administrators and trustees in each school and school board are entrusted with seeing policy move to practices.

In terms of future research, a longitudinal study with the teacher candidates as they move into teaching positions in their own classrooms would give a much better assessment of the on-going impact of the *Infusion*. Keeping with our understanding of infusion, we also need to refine and perhaps further develop our questions in order to assess the distinctions between teacher candidates who are incorporating a little Aboriginal content into existing curriculum and those

who are actually coming to a deeper understanding of and an ability to act on infusing throughout the curriculum.

As we carry on with our Infusion work at the Barrie Site and throughout the entire Faculty of Education, we will continue to rely on the guidance and support of Aboriginal administrators, teachers, parents, and community members and we will continue to adjust our curriculum based on teacher candidates' feedback. We will continue the journey so that each teacher candidate can arrive at and move on from the place where they can say:

My ah-hah moment is getting the big picture of the Infusion and being able to implement it. What was taught to us from the beginning, that what is good for Aboriginal students is good for all students, makes sense. (June 2010 Focus Group 2, Participant 5)

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Notes

1. Though we acknowledge from a scientific viewpoint, the water, bean, and food colouring metaphor may technically describe a diffusion process, we maintain that this metaphor most aptly illustrates for us what we are striving to do in developing and implementing the Aboriginal *Infusion* initiative in the mainstream teacher education program at York University's Faculty of Education field site in Barrie, Ontario.
2. Indigenous, Aboriginal, First Nations, Native, Indian, Inuit, and Métis are all terms used to recognize the first peoples of the lands now called Canada. Because of the continuing, highly charged political context affecting Indigenous peoples, these terms are constantly shifting. This paper will use each of the terms in keeping with the origins of the references drawn upon.
3. Our research project was primarily funded by a York University Faculty of Education research grant with a small contribution from Haig-Brown Research & Consulting.
4. While we cannot draw any strong conclusions from these numbers, it appears that there was more commitment to expressing thoughts following their experience of the *Infusion* than there was at the beginning of the program.
5. This student's comment led us to consider a specific assignment that asks students to show how Aboriginal approaches inform working with students from a range of cultures.
6. Differentiated instruction "provides different avenues to acquiring content, to processing or making sense of ideas, and to developing products so that each student can learn effectively" (Tomlinson, 2001, p. 1).