Closing the Aboriginal Education Gap: A Systematic Review of Indigenous Educational Experiences in Canada

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Abstract

Indigenous learners represent a pool of untapped talents for positively influencing Canada’s economy. But there is a policy need to better enable indigenous learners’ access to higher education. This study presents a synthesis of views and perspectives extracted from eight published studies concerning Aboriginal educational experiences. Canadian indigenous learners were found to have the following views regarding their experiences with post-secondary education: anxiety about moving away from home, trepidation about transitioning from rural to urban spaces, uncertainty about social acceptance and long-term prospects; fear of racism and racial exclusion; and worry that their traditions will not be acknowledged or respected.

Keywords

Indigenous, Aboriginal, Native, First Nations, Metis, Inuit, Canada, Education

Introduction
The United Nations estimates that there are over 370 million indigenous people globally, spread across over 70 countries (United Nations, 2016). In Canada, approximately 3,100 reserves are home to less than half of the nation’s 1.4 million indigenous citizens, who constitute one of the fastest growing and youngest segments of society (Government of Canada, 2013). Yet many indigenous communities in this country are characterized by deep poverty, high unemployment rates, substance abuse, suicide ideation, and domestic violence (National Collaborating Centre for Aboriginal Health, 2013). In recent years, Canada has ranked between 6th and 8th on the UN Human Development Index, while Canada’s indigenous communities fall between 63rd and 78th. The federal government’s Community Well-Being Index shows that the gap has not changed at all since 1981 (Assembly of First Nations, 2015).

These struggles are deterministically linked to a proportional underrepresentation of indigenous people in formal higher education, a trend recapitulated worldwide, as the global decolonization process progresses at variable rates (National Collaborating Centre for Aboriginal Health, 2013). Formal education leads to better employment opportunities, improved coping skills, and better participation in social institutions (Organization of Economic Cooperation and Development, 2015): advantages largely denied many indigenous Canadians. Addressing the education gap is therefore a key component to any strategy for improving the prosperity, health, and well-being, and reducing the marginalization, of Canada’s indigenous population. It is possible that the history and processes of colonization have suppressed indigenous knowledge systems, especially language and culture, thus contributing to the low levels of educational attainment and high rates of social issues, such as suicide, incarceration, unemployment, and separation (Archibald et al., 2010). Any progress on this front, some argue, must include an aspect of harmonizing surviving indigenous knowledge traditions with 21st
century mainstream educational tenets (Munroe et al., 2013), a process completely untried in any formal sense.

What is often overlooked when considering the Aboriginal education gap is that improving the social and economic well-being of this population is also a sound investment in Canada’s economic future (Sharpe & Arsenault, 2010). Closing the gap is, in the words of Barrie McKenna, economics reporter with *The Globe and Mail,*

a clear economic winner. Any investment made by Canada to improve the educational outcomes of Aboriginal youth is likely to reap considerable dividends, including higher GDP growth, lower unemployment, increased tax revenue and reduced demand for health and social services. (McKenna, 2015, para. 3)

By some analyses, Canada’s indigenous population will be essential in mitigating the looming long-term labour shortage caused by this country’s aging population and low birth rate (Sharpe & Arsenault, 2010). According to one study, closing the Aboriginal educational gap—and therefore the labour market outcomes gap—by 2026 would result in economic gains of the order of $500 billion (Sharpe & Arsenault, 2010). Clearly, devising policies to ameliorate indigenous underrepresentation in higher education is an essential task, not just for moral reasons, but for helping to assure that Canada thrives in the evolving global economy.

In Canada, the responsibility for indigenous education is shared by the federal and provincial governments, as well as with a handful of indigenous organizations. The Ontario Ministry of Education's Aboriginal Education Strategy is built upon a policy framework that describes the goals of most provinces: to boost Aboriginal student achievement, to close the gap between Indigenous and non-indigenous educational achievement, and to increase public confidence in publicly funded education (Aboriginal Education Office, 2017).
The focus tends to be on increasing the presence of indigenous staff and teachers, to improve the visibility of highly educated indigenous people as role models, as well as on producing curriculum for mainstream Canadian education that is reflective of indigenous experiences. Success in these initiatives is variable. In addition, efforts to make non-indigenous teachers aware of the particular learning styles and needs of indigenous students are underway (Aboriginal Education Office, 2017).

Policies embraced or proposed by other actors, such as the Assembly of First Nations, advocate for the integration of anti-violence messaging into educational practices (Oloo, 2007). And the Council of Ministers of Education stresses the need to measure outcomes, and to improve the data collection infrastructure to allow such ongoing measurements (Friesen et al., 2012).

Opportunities for enhancing indigenous participation in higher education is an area of research that is markedly under explored, especially as it relates to Canada’s wider participation in the global economy. Studies tend to examine the struggles of indigenous people in accessing basic services and are usually contextualized as a social tragedy. But the Aboriginal education gap is not merely a human rights issue, but an economic one. According to a commissioned report, Not only would [educational improvement] significantly increase the personal well-being of indigenous Canadians, but it would also contribute somewhat to alleviating two of the most pressing challenges facing the Canadian economy: slower labour force growth and lackluster labour productivity growth. (Centre for the Study of Living Standards, 2007) While studies have addressed the general crisis of comparatively poor Aboriginal education and educational opportunities, the areas least explored are: (a) the extent to which the geographical,
cultural, and linguistic diversity of indigenous peoples can be used to enhance Canadian education as a whole (Archibald et al., 2010); (b) the extent to which the sharing of governance responsibilities for Aboriginal education, between various levels of government, helps or hinders effective educational service delivery (Archibald et al., 2010); (c) the potential productivity and competitive gains to the Canadian economy afforded by improvements in Aboriginal education (Centre for the Study of Living Standards, 2007); (d) the extent to which Aboriginal childhood experiences manifest as adult educational barriers (Bryce et al., 2016); (e) assessing and measuring deterministic barriers to success, such as transitions between school systems and actual campus environments (Friesen et al., 2012); (f) the interplay between indigenous access to education and other social determinants, including violence, poverty, racism, and addiction; and (g) the devising of specific policy directives for various actors, including government, to best position Aboriginal education in a wider, competitive global context.

This study synthesizes the knowledge of, and provide critical insights into, Canadian indigenous peoples’ perceptions of their educational challenges. The intent was to explore the literature to address the following three questions: (a) What are the current challenges, barriers, and opportunities for Canadian Indigenous people to accessing post-secondary education, with particular attention paid to educational barriers and opportunities for indigenous peoples’ engagement in the global economy? (b) What are the opportunities for integrating Aboriginal educational practices and experiences into the Canadian global economic strategy? And (c) what are the best practices and governmental policy options for maximizing inclusion of indigenous individuals in both higher education and resulting employment? (Please note that throughout this paper, the terms indigenous and Aboriginal are interchangeably, which is the practice of most of the cited literature.)
Methods

A systematic review of published literature was conducted, with a qualitative knowledge synthesis applied to the data extracted therein. The peer-reviewed published literature was explored for relevance to the primary, Canada-centric research questions, while a parallel investigation of grey (i.e., non-peer reviewed) literature was conducted in a non-systematic fashion to elucidate wider perspectives on relevant matters, mostly global in scope.

The following bibliographic databases were searched: Web of Science, Embase (through OVID), PsycINFO (through OVID), MEDLINE (through OVID), and CINAHL (through EBSCO), and Scopus. The search strategy was developed through a consultation with an information specialist. Two search strategies were implemented, limited to results from 2000 until 2017, to publications concerned with Canada and written in English.

The first search concerned indigenous populations’ experience with education, using the following Boolean combination of search terms pertaining to indigenous identity and educational experience. The second search concerned indigenous populations’ experience with employment resulting from higher education. Inclusion criteria were that: the population of focus was identified as indigenous, identified thusly via overt statements pertaining to their status; the primary interest of the selected studies was barriers to participation in post-secondary education; the secondary interest of selected studies was opportunities for integrating indigenous educational practices and experiences; the tertiary interest of selected studies was policies aimed to increase inclusion of indigenous individuals in higher education leading to employment.

Two independent reviewers screened all retrieved citations. At the first screening level, titles and abstracts were screened for relevance to the research questions. In the second level
screening, full texts were screened against the established selection criteria. Any discrepancy between the two reviewers was addressed through adjudication by a third reviewer.

Any and all themes and quotations relevant to one or more of the three stated research questions were collected, along with study characteristics. Reviewers assessed the quality of the included studies based on their credibility, transferability, dependability, and confirmability. Studies that were deemed to be low quality were still included in the analysis. However, these studies are noted as such and carry less weight on informing the overall results than do studies that we deemed as being of high quality.

Data were extracted about the context of each included study, its participants, design and methods, as well as the findings relevant to the research questions. Contextual and thematic analysis of these extracted quotations were applied. Themes and sub-themes that arose from each reviewer’s analysis were discussed and a consensus was reached. Results from the grey literature did not inform the thematic analysis. Instead, those results were used to provide contextualization, and were used as a potential indicator of publication bias.

**Results**

Out of the six bibliographical databases searched, we retrieved 1,871 citations. After conducting first level screening of titles and abstracts, a total of 137 citations were deemed relevant and the full texts of these citations were retrieved. Second level screening of the full text articles resulted in 8 studies that fit the selection criteria and are included in this systematic review. Of the excluded studies, 83 were excluded due to different research topic interests, 36 due to different contexts, 5 due to different study populations, and 5 due either to being a duplicate or to failure to retrieve the full text.
Although the search strategy covered the last 17 years of peer-reviewed publications, all of the included studies were published within the last 10 years and were conducted in various geographical locations across Canada. There was paucity of information with regard to the demographics of participants. Four studies reported on the proportion of female participants, showing one study to have had all-male participants,\(^6\) one study with all female participants,\(^1\) and two studies with 78 to 79% female participants.\(^2,7\) The average of participants was 31 years of age.

1. Barriers to Participating in Post-Secondary Education

Five repetitive themes were identified that described barriers to post-secondary education for Indigenous people. The first was a fear of losing indigenous identity. Amongst most participants in two of the included studies, the fear of losing their connection to their home communities and of being pressured to abandon indigenous ways of thinking and acting were major hurdles in their attempts to fulfill their educational goals (Bingham et al., 2014; Bonnycastle et al., 2011; Erwin et al., 2015).

A student participant offered: “I lost myself when I came here. I am not me anymore—the way I would be when I was at home—and I do not like the way it feels. It feels like I have no culture” (Participant 20).\(^1\) And from another student participant: “[I] constantly must be aware of [...] what environment I am in. Am I with the common community? Am I with the Anishanabe people? [...] Who’s around? [...] If they’re my friend, then I have to be this way. When I’m in the classroom, I have to do this. When I’m with schoolmates, I have to be this way. When it’s Friday night, I have to be this way. When it’s Sunday morning, I have to be this way. [T]hey’re constantly working” (Erwin et al., 2015).
The second identified theme was a fear of estrangement. A general feeling of apprehension regarding moving away from home into a large urban community, a concern of loss of the social support network, and worry about fitting into the new environment were feelings expressed by indigenous students in four of the included studies (Bingham et al., 2014; Erwin et al., 2015; Oloo, 2007; Timmons, 2013).

One student offered: “[…] culture shock. It's a whole different world […]. I don’t think […] [non Aboriginal peoples] can completely grasp […] what it means to leave a reserve [and] go into a city. I don’t think anybody really understands […] unless you are connected to that […]. [My husband’s] cousins and nieces and nephews who are old enough to leave and go to school, most of them fail the first year because […] it’s a different world […] going from the reserve life to city life. There’s no comparison between the two. We speak differently. We act differently. We talk differently. We think differently. So […] it’s a huge culture shock” (Erwin et al., 2015).

An Elder participant said: “[…] leaving your home reserve where you felt safe and valued and […] part of a community life and […] enter[ing] a college system that is totally foreign to anything that you have ever, ever experienced […] can be pretty daunting for some […] of our Aboriginal students so they sometimes drop out for those reasons.” (Erwin et al., 2015).

Similarly, another student added: “Coming in from a community which is like 10,000 and then coming into a university which is double the population of my community, it's been a really big transition” (Timmons, 2013).

A third identified theme was a fear of experiencing negative attitudes from non-indigenous people. Fear of both a lack of respect for traditional ways and an expectation of
racism were identified as barriers to seeking post-secondary education in three of the included studies (Oloo, 2007; Parent, 2017; Timmons, 2013).

One student related this experience: "In my class presentation, I brought in a circle. The professor made sarcastic remarks, 'Oh, are we going to hold hands?' ... 'Are you done with your circle?' I felt that my culture is not honoured." Similarly, a researcher noted that: “Adapting to higher education standards and overcoming the latent institutional racism were also identified as important challenges by several workshop participants” (Rodon et al., 2015).

A fourth recurring theme was concern for personal financing. The inability to make ends meet and a lack of sufficient funding to Aboriginal support programs were identified as significant barriers preventing Aboriginal participation in higher education in four of the included studies (Bingham et al., 2014; Bonnycastle, 2011; Rodon et al., 2015; Timmons, 2013).

In the words of one student, “[funding] has been the same amount for the past ten years and it's not keeping up with the inflation at all... supposed to include our rent, our bills, our transportation, our everything, and I find it's very hard to work with” (Timmons, 2013).

The last participatory theme had to do with a prevailing concern for ongoing family responsibilities. Four of the included studies identified family responsibilities as a hurdle to the continuous education. Especially considering that many indigenous learners decide to join post-secondary education after the start a family (Bingham et al., 2014; Bonnycastle, 2011; Rodon et al., 2015; Timmons, 2013). According to Bonnycastle et al. (2011),

post-secondary education institutions fail all students-and particularly Aboriginal women students-when they position campus and community childcare services as peripheral to the education mandate and fail to accommodate the caregiving needs of their students. Few
university presidents would deny a campus library is an essential tool for student learning, yet the parallel argument for childcare services has yet to be made.

2. Policy Opportunities for Overcoming Educational Barriers

As above, five policy themes emerged as opportunities to help address the aforementioned identified barriers. The first concerned access to indigenous knowledge at post-secondary education institutes; this has been identified in five of the included studies (Erwin et al., 2015; Oloo, 2007; Restoule, 2005; Rodon, 2015; Timmons, 2013).

The presence of programs, role models, images, and curriculum representative of the Canadian indigenous experience may prove to be a welcoming element on college and university campuses, helping to assuage prospective students’ fears of cultural isolation, alienation, and abuse. This theme includes the presence of counseling services tailored specifically to the needs of indigenous peoples, who have specific mental health needs and challenges. As one student offered: "The Native Counselling Unit has been a great source of support for me at this university" (Timmons, 2013).

The second policy theme had to do with an increased awareness of indigenous peoples at post-secondary education institutes; this has been identified in five of the included studies (Erwin et al., 2015; Oloo, 2007; Restoule, 2005; Rodon et al., 2015; Timmons, 2013). A visible presence of indigenous students on campuses, not just of programs and institutions, can help to create a welcoming environment conducive to both individual pride and scholastic participation. Several studies cited students’ expressions of relief at recognizing familiar cultural tropes and overt efforts to accommodate their accommodation needs. One student, opining about the dedicated
Native Lounge at his institution, said: "If it weren't for other Native students... I don't think I would have survived" (Timmons, 2013).

The third emergent policy theme was a desire to establish and increase support to existing programs that offer support targeted to indigenous peoples; this was identified in all of the included studies (Bingham et al., 2014; Bonnycastle et al., 2011; Erwin et al., 2015; Olool, 2007; Parent, 2017; Restoule, 2005; Rodon et al., 2015; Timmons, 2013). Beyond student groups and scholastic programs targeted to indigenous needs, there is a role to be played by encouraging the creation of an accepting campus, not solely for indigenous students, but for all learners from distinct cultural backgrounds. With the rise of mental health challenges on campuses, the creation of retreats and spaces for the reinforcement of social cohesion could produce a sense of welcoming leading to reduced drop-out rates. As one study found, "all First Nations student participants spoke of the need for a safe place, a stand-alone location or haven to which they could retreat to avoid the disorienting sense of 'disconnect' at the college" (Erwin et al., 2015).

The fourth policy theme was a desire for the active encouragement of the creation of indigenous student clubs and associations which can offer peer and community support; this has been identified in five of the included studies (Erwin et al., 2015; Parent, 2017; Timmons, 2013). Several of the policies relate not to the attraction of students to colleges and universities, but to their retention. There is a sense that poor study completion rates are associated with an overall paucity of community support. Thus, many of these policy recommendations have some conceptual overlap. Whether it is the creation of safe spaces, student clubs, indigenous programs, or a general sense of community acceptance, the intent is to inculcate campuses with multiple characteristics of a generally accepting community. As one student said, about the new community encountered on campus: “I find we're kind of like a big family, you know, and if you
have a problem or a question you can go to pretty much anyone and ask them, they'd be more than happy to help you” (Timmons, 2013).

The fifth and final policy theme was a call for an increase in funding to Aboriginal educational incentives and programs; this has been identified in four of the included studies (Bonnycastle et al., 2011; Parent, 2017; Rodon et al., 2015; Timmons, 2013). This is a direct policy solution that governments and universities can enact in short order. A commitment to fund scholarship programs for direct financial support of students can help overcome the single largest social determinant of educational, and thus economic, participation: personal and familial poverty.

Furthermore, the funding of programs intended to assist in the housing, transportation, and settlement of indigenous youth who have chosen to pursue studies far from their home communities, is a programmatic amelioration that can pay dividends both immediately and in the long term. One participant explained that he felt he had to “choose whether to ’give up an education for [his] home or give up [his] home for education’” (Rodon et al., 2015).

Discussion

A recurring, but not surprising, theme arising from both the grey literature and extracted peer-reviewed studies was that indigenous learners experience high levels of anxiety concerning the move from traditional communities to college or university campuses. This is not unlike observations made of college-age students across all cultures in North America; studies consistently find that anxiety is the most common mental health diagnosis among this demographic (Brown, 2016). These experiences not unlike those of any racial or ethnic minority
seeking purchase in a new environment. But studies have shown that visible minorities are least able to find easy social integration in new societies (Na & Hample, 2016).

Among visible minorities, though, indigenous peoples in Canada experience a unique burden due to their historic political challenges and ongoing marginalization in all levels of society. It is not surprising that such marginalization would continue to be felt within the educational domain, as well. Chronic stress and mental health concerns have been well documented among Canadian indigenous peoples attempting to find social purchase among non-Aboriginal people, particularly in circumstances where rural dwellers seek integration in an urban environment (Benoit et al., 2016). The nation's present crisis of suicide ideation among indigenous youth is in part a manifestation of this particular stress pathway (Mehl-Madrona, 2016). As one researcher noted, "the idea of personal and cultural continuity is essential to understanding suicide among First Nations youth" (Mehl-Madrona, 2016). Cultural continuity, or its lack, is a theme that re-emerged in the analysis of educational obstacles.

It is important to note that these integrative experiences, whose broad nature and high prevalence are presently specific to the indigenous case, are a worldwide phenomenon among first peoples in many nations. "Culture and belonging are key components of identity," thus the underlying cause of poor integration, whether it is within a larger social context or specific to college campuses, "is not being indigenous but coping with losses secondary to colonisation" (Hatcher, 2016). And as colonisation was a policy directive, so can further policy directives serve to address the identified deleterious experiences.

The motivation for conducting this review was to seek policy pathways to leverage unexpressed indigenous skills in furtherance of the Canadian global economic agenda. The argument is that Canadian indigenous peoples, who constitute the country’s youngest and fastest
growing demographic (Kirkup, 2017), represent an unrealized economic asset that must first be refined via higher education. Other OECD nations, such as Australia, have recognized this potential. That nation's Centre for Aboriginal Economic Policy Research suggests that culturally-biased evaluations and circumstances create an environment for indigenous underperformance; and that a tendency to stream Indigenous students toward arts and education careers, rather than business, engineering, and science, can serve to exacerbate socioeconomic divides between Aboriginal and non-Aboriginal people (Schwab, 2006), while also slowing the potential for this population to exert its power on the global economic stage.

An Australian systematic review with similar goals to the present study (Gore et al., 2017) found that a lack of career guidance is a barrier preventing indigenous peoples from pursuing and thriving in higher education. Like the results from the present Canadian review, they found that cultural unfamiliarity, fear of exclusion, and issues with social integration were further barriers (Gore et al, 2017). They further found that financial support, the visible presence of indigenous centres and programs, and community encouragement were enablers to Aboriginal educational success (Gore et al, 2017), again echoing the conclusions herein.

While these results fall short of offering specific policy guidance for immediately leveraging indigenous expertise to serve Canada's global economic agenda, we suggest instead that seeking to reduce barriers to indigenous participation in higher education will ultimately enable the cultivation of indigenous people's talents for a longer-term application in service of this nation's economic needs. Policies that are perceived to be most effective in reducing those barriers focus on two broad areas: making educational centres more welcoming to Aboriginal learners and providing financial assistance to low income Indigenous students.
It is recommended that further research be pursued through the evaluation of pilot projects seeking to address Aboriginal educational shortfalls. The present study suffered from a dearth of expert opinion relating specifically to directives for inclusion of indigenous workers in the global economy. Additional research overtly seeking to elucidate short- and long term governmental strategies for integration of a national Aboriginal education strategy with the nation’s grander economic scheme would be well received.

Our results suggest a perceived value in the funding of ameliorative programs for improving campuses’ welcoming nature, scholarships for indigenous students, and endowed Indigenous-focused programs within universities and scholarships. Extant initiatives have not been well evaluated, in terms of process indicators, qualitative perceptions of value, and both economic and social impact. Such evaluative research would be a valuable guide for policy makers seeking to make immediate positive changes.

Conclusion

The published evidence suggests that Canadian indigenous peoples have deeply felt concerns about their ability to access post-secondary education. Empowering indigenous Canadians to seek higher education is a potent policy path for leveraging the innate talents of this growing demographic for the furtherance of Canada’s global economic agenda.

Echoing similar findings in other OECD countries with sizable indigenous populations, it was found that Aboriginal learners feel trepidation about finding social purchase on the campuses of higher education, while experiencing acute financial barriers to their participation. Therefore, there is a viable twofold path forward: strive to make campuses more inclusive and welcoming to Aboriginal learners; and invest in scholarship and financing programs to help low
income indigenous people, particularly remote and rural ones, access the benefits of post-secondary education.

**References**


**Biographical Statement**

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