Chapter 10
Indigenizing Education: Lessons Learned, Pathways Forward

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Abstract The final chapter specifically explores how the ten themes that emerged from Chap. 1 have implications for the teaching and learning that occurs within our communities, schools and universities. The complexities of these themes, and how they are interwoven throughout the previous chapters, are illustrated. Advice and recommendations are provided for how educational practices can recognize and respect the intellectual and cultural traditions of Indigenous peoples within, and between, Australia and Canada.

Our primary goal for writing this book has been to bring together First Nations' educators and non-Indigenous educators in Australia and Canada to share their research in a dialogic, practitioner-focused way about what it means to Indigenize education in whichever settings that educational practices occur. In doing so, each author has taken a stand in seeking to imagine and transform educational systems and practices to those that support and celebrate the knowledges and perspectives of Indigenous peoples.

Each chapter has demonstrated what it might mean to honor and respect Indigenous histories and cultures, and/or to embed Indigenous knowledges and perspectives within curriculum, pedagogy and assessment. It is evident from these research accounts across Australia and Canada that the colonial understandings of education and the corresponding foundations of educational systems function to maintain particular kinds of cultural and historical contexts that privilege White systems of knowing. Education is the process by which the dominant group in society instructs its citizens in the ways, customs and understandings that it deems are of fundamental importance, and in doing so, establishes and maintains the White hegemony of education that has failed to serve the needs and interests of Indigenous peoples. Each chapter in this book has illustrated how researchers and educators have committed themselves to disrupting the colonial narrative of education.

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This chapter focuses on revisiting how the contributors have illustrated and responded to the ten themes raised in chapter one. In doing so, they offer site-specific, community-led insights into how other educators might also take up what Tripcony (2004) called "everybody's business" in Indigenizing education.

Theme One: The Legacy of Colonization

The first theme was centered around the overarching context for Indigenizing, that both Australia and Canada are still embedded in the legacy of colonization. Our schools, curriculum (decision making, content, processes, relationships) and teaching practices are built upon Eurocentric beliefs and attitudes with the specific goal to assimilate all students into a British Eurocentric view of the world. Eurocentric beliefs and attitudes represent a strong theme in many chapters of this book. With a focus on university systems, the first part of chapter seven outlines settler colonialism and how formal education systems, specifically tertiary educational systems, are underpinned by colonial ideologies. It also endorses Tuck, McKenzie, and McCoy (2014) position that "when we theorize settler colonialism, we must attend to it as both an ongoing and incomplete project, with internal contradictions, cracks and fissures through which Indigenous life and knowledge have persisted and thrived despite settlement" (p. 8). While Western universities have been built upon colonial assimilation agendas, chapters seven, eight and nine provided case studies of these "cracks for thriving," spaces where Indigenous ideologies and perspectives were incorporated in a particular site with supportive arrangements (Kemmis et al., 2014) to transform the curricula, practices and resources in use.

With a focus on formal primary and secondary education, Racette, a Metis Elder, discusses the legacy of colonialism in Chap. 5 by talking about his life and educational experiences growing up in Saskatchewan. He explains how Métis content was never taught in school, adding that "if this perspective of Riel and Métis history were taught in schools, I believe more Métis students would have stayed in school. I believe that if students were educated about Métis history and their struggle against unfair government infrastructure and policies, then students would have understood and fought to maintain the rights that Riel gave his life for." This legacy of colonialism can also be found in Chap. 6 which explores the role that reductionist science has played in generating and supporting colonial ideologies that view Western science as superior to other ideologies. Sammel clearly dissects how science education perpetuates this colonial agenda with the idea of indoctrinating students into viewing and understanding the world through a myopic lens of Western science which ideologically positions humans as "exceptional in regard to other species, and above or separate from things classified as "nature." This dualistic thinking of humans as distinct from nature still justifies the exploitation of those classified as objects (nature), and the dismissal of cultures who were perceived as being closer to animals and nature. Legacies of these beliefs still circulate in the collective consciousness, policies and infrastructures of contemporary colonial cultures such as Australia and

Canada." Sammel impels educators to reform the reductionist thinking of Western science, to become more relational in its perspective. This chapter makes the case for how Indigenous Knowledge Systems represent an opportunity for science and science education to expand their narrow understandings of what counts as knowledge and to offer a fuller understanding of the human experience in relationship with all of nature.

In Chap. 8, Whatman, McLaughlin and Hart illustrated that the right policy conditions can open up cracks for reform in university curricula and practicum arrangements. In explaining the model for supporting the *ongoing* process of embedding Indigenous knowledges in teaching practice, stakeholders who are implicated in firstly recognizing their role to do this work are secondly provided with micro-level analyses of how hegemonic practices prevail, but importantly, how they can be changed. Even before practices are considered, Indigenizing education requires explaining why certain taken-for-granted assumptions and/or understandings are not so. For example, in Chap. 2, Blue discussed the massive income disparity gap between Indigenous and non-Indigenous people. She points to previous research that revealed that the gap in incomes will not be resolved by through education and higher paying jobs. Instead funding is required to address colonial legacies. The deficit approach to conventional financial literacy education is discussed to bring attention to why achieving financial well-being may be more difficult for Indigenous people to achieve.

Theme Two: Disrupting the Privileging of White (Western) Epistemologies, Ontologies and Axiologies

The second theme recognized that schools as formal sites of educational practices continue to be designed and managed by people who privilege Western epistemologies (ways of knowing), ontologies (ways of being) and axiologies (ways of doing). Indigenous ways of knowing, being and doing are seen to be irrelevant to the larger project of societal education, or only of relevance to Indigenous peoples. There is a lack of professional development and administrative structures valuing the important contribution that Indigenous perspectives can make to Australia and Canada. Tailby, Whatman and Sammel critiqued in Chap. 4 an educational aspiration program offered only to Indigenous primary (or elementary) students, which on the surface would seem to do little to disrupt the perceived "irrelevance" of Indigenous knowledges to non-Indigenous students. However, as they depict in the narrative conversation and recount of the content and impact of the *iDream* challenge projects, Indigenous students themselves demonstrated the value and educational worth of their knowledges by sharing their work with their wider school communities in innovative ways. Blue in Chap. 2 offered a critique of the privileging of Western ways of doing things in community education settings by advocating for a needs-based approach to financial literacy education. Blue also acknowledges that there is a need to understand

capitalist ways of financial reporting used First Nation communities to challenge oppressive financial practices occurring inside and outside communities.

Chapter 7 by Sammel and Segura specifically critiqued the privileging of Western epistemologies in University settings, stating "the cultural invisibility of settler colonialism has become normalized in hegemonic infrastructures such as Western educational systems." They named typical ways in which a lack of Indigenous perspectives and knowledges in formal education systems are manifested, from the cultural backgrounds and knowledge sets of educational administrators and faculty members (the hiring of White faculty) to the production of educational materials and resources (reproducing White knowledge bases). Their case study of the University of Regina in Saskatchewan, Canada revealed a policy rhetoric of campus Indigenization, but also institutional commitment that extended to programs and curricula. This university recognized the need for change, a critical ingredient for Indigenization also discussed in Chap. 8, illustrating how they approached Indigenization and Internationalization *together* by concurrent strategic planning and leadership, program development and international engagement. Specifically, it highlighted examples and lessons learned from programs developed by the University of Regina and its Mexican university partners. However, this chapter also illustrated that even though the strategic direction of the university provided support for small Internationalization programs, they asked to what degree had there been permanent structural change or a change in the status quo of the academic culture? This chapter concluded with the uneasy realization that even policy and curriculum commitment may not produce lasting change.

The programs in this case study were successful in their outcomes of providing spaces where different Indigenous and non-Indigenous communities could come together in collaboration and dialog. These programs could be classified as a form of "reconciliation Indigenization" (Gaudry & Lorenz, 2018) where universities work to reconcile Indigenous ideologies and perspectives with Western ideologies and perspectives in relationship with local Indigenous communities. Even though Chap. 7 focused on the apparent success of these specific Indigenization-Internationalization programs, it is important to put these programs into a larger university wide context. Gaudry and Lorenz (2018) cautioned that universities tend to create these reconciliation spaces in only a handful of programs that are insignificant to the larger workings of the academy. This ties in with the second theme of this book that discussing how Indigenous knowledges and perspectives may ultimately been seen as irrelevant to the larger agendas of hegemonic education. This is certainly the case for these Internationalization programs. While these International programs may offer an example of implementation, it might be argued that fundamental changes throughout the university have yet to occur. If Indigenization is to be a process where universities transformed their existing academy to equitably including Indigenous ideologies, perspectives, voices, scholars and students, then these international programs might represent false hope in achieving this outcome. What these programs do highlight is that the University of Regina has made one positive step forward toward the practice of reconciliation Indigenization. Chapter 7 cautions that institutions who progress down this road must be vigilant that programs such as these ones do not

become “the solution” or become “the answer” to the institution’s responsibility to Indigenization—but rather one step along a pathway toward a more comprehensive agenda.

Chapter 5 speaks to the need for professional development in understanding the important contribution that Indigenous perspectives can make within society. Focusing on quality professional development around Treaty education (what it is, why it is important and examples of what it looks like), Calvin Racette and his Indigenous colleagues developed a nationally recognized Treaty education resource. This project emerged from their experience that knowledge of Treaties is lacking and not widely valued in formal education systems. They believed there was a lack of professional development and resources to support teachers around understanding the contemporary reality and applicability of Treaties in Canada. With the current Canadian emphasis on reconciliation, schools are being asked to educate around, Treaties but there was little support to support teachers in this endeavor. Chapter 5 demonstrated the range and scope of resourcing required to support an informed approach to reconciliation via two different project examples of Treaty education in both primary and secondary schools.

Theme Three: Speaking Back to Racist, Colonial Representations of Indigeneity

The third theme identified in Chapter 1 posits that Indigenizing means understanding and speaking back to colonial representations of Indigeneity which have been racist, deficit-oriented and under-valued. Means by which such speaking back can occur can be through the decolonization of language and thinking, and the foregrounding of experiences and worldviews of Indigenous peoples, so that Indigenous ideologies and perspectives are honored and respected in formal education for *all* students.

In Chap. 5, Racette explained how important it is for education to speak back to colonial portrayals of Indigenous ideologies and knowledges as less than Western ideologies and knowledges. He highlights how educators need to understand and respect that Indigenous perspectives are different from Western and Indigenous knowledge bases, revealing how the same phenomenon can be understood through different lenses. For example, he says:

> I think the term ‘Indigenizing education’ has different meanings to different people. From an education perspective, Indigenizing education is often seen as taking Indigenous content and teaching it through a Western lens to be evaluated in a Western reporting system. This is a common approach to the school systems and I believe that it is a wrong approach.

In this chapter, Racette extended our understanding of Indigenous Knowledge Systems (IKS), including the diversity across communities and the function of Indigenous perspectives. This discussion highlighted how each Indigenous community has developed and holds its own IKS and the integrity and complexity of those systems. What can be understood by someone not from that community are perspectives of

those knowledges. Indigenous perspectives are what may be taught in spaces outside of the Indigenous community. This idea is also illustrated in Chap. 6, where the same can be said of Western science. A scientist working in their specific field might hold an understanding of the complexity of the knowledge system, but someone not working in this space might only understand certain perspectives about the concept in question. They may never really understand the contextual or holistic understanding of that knowledge. However, people outside of that community can learn Indigenous perspectives that relate to the world around them. For example, Racette explains that "for Indigenous people, every concept that exists in the education system for Western society has a parallel teaching in the Indigenous world. Mathematics, Science, History, Health, Language, Literature are subjects that are common in school. The Indigenous peoples of the world have all these within their teachings. Indigenizing means to learn these concepts from the Indigenous people's viewpoint. Without these Indigenous perspectives being included in formal education, it sends a message that Indigenous content and history have less value."

To explore how Indigenous ideologies and perspectives can be honored and respected within formal education, Sammel in Chap. 6 discussed an example of a contemporary Acknowledgement of Country. She explained that "an Acknowledgement of Country is a practice where the Traditional custodians of the land, and their long and continuing relationship with the land, are recognized by the speaker (or in this case, the teacher). It can be done by someone who is not an Indigenous Person of that specific land and usually it is undertaken at the beginning of important events or gatherings. The example acknowledgement drawn from Sammel's own university involves saying the following lines: *I would like to acknowledge that we are meeting on the traditional lands of the (name) people, and I pay my respects to Elders both past and present."* She noted that:

> an Acknowledgement of Country is a process about agreeing to share Country in the ways the traditional owners advocate and practice…it illustrates what showing respect for Country looks like in that context. It is not a one-off statement made at the start of a school year, but an agreement that a person will learn (and in the case of educators—facilitate the sharing of this knowledge) how to abide by and respect the values of that Country.

Chapter 6 thus illustrates the power of what Sammel did in seeking to honor Indigenous ideologies in a genuine way via Acknowledge of Country in the teaching of science education to preservice teachers.

More ways of speaking back to colonial representations were depicted in Chap. 7 in their critique of the collaboration between the University of Regina in Canada and the Intercultural University of the State of Mexico (*Universidad Intercultural del Estado de México*). This collaboration promoted the mobility of students at the University of Regina and Indigenous students from Mexico to exchange their culture and traditions in short-term, non-credit programs. Topics included in these programs centered on understanding post-Confederation era and treaty signing, the Indian Act, the Canadian Indian residential school system, First Nations protocols and methodologies, and current Indigenous issues in Canada. They offered local experiences where students undertook field trips to a First Nations community formerly known as an

Indian reserve, a former Indian residential school, and a powwow (a formal meeting and celebration where First Nations people gather together from across the country). These programs encouraged Indigenous participants to interrogate colonial misrepresentations of themselves and each other through experiential exchange, enabling better understanding of the experiences, standpoints, perspectives and worldviews of Indigenous peoples across the continents.

In Chap. 3, Wasyliw and Schaefer's engagement with Philip and Amelia from the very beginning of the inquiry as Kahnawà:ke knowledge holders from Kanien'keha:ka (Mohawk) community near Montreal enabled the process of speaking back to shape the nature of Wasyliw's PhD research investigation as it unfolded. He noted:

> Philip and Amelia's stories began to broaden my own stories of how we can know the world. This process shaped me in a way that allowed me to appreciate their stories, but also realize how different their stories are than my own. This was an important aspect of the inquiry as contextualizing their stories and ceremonies allowed them to become "humanized rather than exoticized" (Grimes 2017, p. 8).

The active participatory role of knowledge holders in the research design and action disrupted and enriched the non-Indigenous researchers' onto-epistemological beliefs, opening up the possibilities of what health education can mean beyond Eurocentric definitions and challenging prevalent, deficit Western representations of Indigenous peoples as "unhealthy."

Theme Four: Indigenizing Education Involves Tension and Agency

The fourth theme underpinning Indigenizing education has recognized that in order to incorporate the epistemologies, ontologies and axiologies of Indigenous peoples into educational systems which have typically privileged non-Indigenous ways, tensions are inevitable. It is timely here to return to Nakata's (2007) Indigenous standpoint and cultural interface theory where he argues that tension between hegemonic systems is necessary for Indigenous agency to flourish. Whatman, McLaughlin and Hart in Chap. 8 argued that while a lack of (mostly White) teachers' personal knowledge of Indigenous histories and cultures in Australian has been identified as a *constraint* upon embedding Indigenous knowledges in the Australian curriculum, with certain conditions and arrangements, it is also an *enabler* for those who possess the knowledge. In this chapter, the possessors of Indigenous knowledges were preservice teachers who needed to demonstrate their confidence and competence in teaching in practicum situations. In contexts where White hegemonic knowledges prevailed, the students often found themselves marginalized by White supervisors as non-knowers or "struggling" beginning teachers. The political insertion of the imperative to embed Indigenous perspectives in curriculum and teaching provided by state policy such as EATSIPS (2011) and the cross curriculum

priorities of the Australian Curriculum (ACARA, n.d.), along with the strengths-based premise of the overarching research project, created moments of liminality (Whatman, Quennerstedt, & McLaughlin 2017) enabling previously "struggling" preservice teachers to see themselves and act as knowers. The process model for embedding IK that was illustrated in chapter eight clearly identified how and where preservice teachers and experienced teachers, and supporting agents in teacher education, field experience and school communities, could approach their task via close attention to their relationality and practices in each site.

Racette, in Chap. 5, also identified the tensions and agency that can arise when Indigenizing education. He noted "it is a place where you will find all sorts of challenges. But once you achieve a level of success, you can never go back. Teachers enter the profession to be the best they can be, they want to make a difference. In this area, the struggle is real, and it has many turbulent times." He also noted that new forms of community, student and teacher agency are enabled by the addition of Indigenous content into the curriculum. He pointed out that "it makes it more interesting and provides a link from the historic to the contemporary. The rewards are not hard to come by if you work at it. You get rewards when you see Indigenous and non-Indigenous children very engaged in the content and interested in what you are teaching. It is wonderful when you experience the light bulb moment when they start to make connections. You get a great deal of internal gratification because you know that you are making a difference." Racette reiterated that Indigenous knowledges in education are for *everybody:* "all people need to understand what happened in order to heal and move forward."

Blue, in Chap. 2, argues that agency in a financial context is an achievable outcome of financial literacy education. She describes a research project in a First Nation community that focused on community members being comfortable asking questions about finances relating to their own finances and the Community's finances.

Theme Five: Indigenizing Education Can Take Multiple Forms

The fifth theme identified in Chap. 1 centered on what forms that Indigenizing education can take. The subsequent chapters have demonstrated that this can include promoting and privileging Indigenous cultures, worldviews, content, processes and ways of being with self and others in social, physical, spiritual and cognitive environments. In Chap. 3, Wasyliw and Schaefer's narrative inquiry with Kahnawà:ke knowledge holders Philip and Amelia, demonstrated how Indigenous ways of knowing can be theoretically and practically embedded in higher education within a physical health education teacher education (PHETE) program. By situating themselves as teacher-educators alongside knowledge holders Philip and Amelia, with decision-making authority on what teachers should learn about physical education and health (PHE), they as non-Indigenous educators came to better understand the deeply contextual, cultural, familial, political, geographical and complex nature of Haudenosaunee ways

of knowing about physical and health education and what this knowledge offers to PHE as a discipline and PHETE as a professional learning site.

These multiple forms can be employed to assert and defend Aboriginal rights and treaties, offering a fuller, truthful telling of history. In Chap. 5, Racette described the book series he created called *Under One Sun,* published by Nelson Education, aimed at kindergarten to grade eight, in order to support teachers in feeling comfortable and confident embedding Indigenous perspectives in their classrooms. He explained, with illustrated examples, how the book series enables Indigenous perspectives of Canada's history to be taught through the exploration of Treaties. The book series was created out of the standpoint that "it is important for Canadian teachers to understand Treaties as negotiated between the British Crown and the First Nations communities" rather than a claim made by First Nations communities alone. All of these treaties had clauses that covered land, rights, education, health and behavior and are legal documents that require the descendants of *both* historical signatories to honor them. Racette reminded us that the clauses in treaties provide a way forward in which Settlers and First Nations communities can share a common future. Rather than being historical relics, or documents that only First Nations peoples need to know, treaties should be regarded as living, "forever existing" agreements that are designed to enable a prosperous life for all Canadians.

The Internationalization programs discussed in Chap. 7 were specifically developed with local Indigenous communities to promote their cultures, worldviews, content, processes and ways of being. Key to these communities was promoting an understanding of Treaties, Treaty rights and the importance of ceremonies. One of the international exchange participants stated:

> a thing that I remember a lot is that they gave us a guided visit to a building (within the University) that had a ceremonial center where First Nations perform ceremonies and invoke their spirits. A place where the material and immaterial world made a binomial of culture and beliefs creating an environment of deep respect and pride. The First Nations peoples expressed how proud they felt of their roots. Being able to partake in this activity made it a very enriching experience to me.

Further illustrating what it means to Indigenize education in specific contexts, Chapt. 6 advocates that both science and science education need to value local Indigenous ideologies and perspectives and be open to learning and incorporating these ideologies if we are to find examples of living ecologically sustainable lifestyles.

In Chap. 9, Bodle and Blue narratively recounted the process of backward mapping that Bodle undertook to design the assessments, learning outcomes and activities for a newly designed course. The importance of ensuring that First Peoples histories, perspectives and cultures in a business context were explicit throughout the course met that assessment that demonstrated deep learning were designed. Bodle also described the deliberate decisions she made when choosing the learning activities and resources to ensure the coherence and sustainability of the innovation in years to come.

Theme Six: Resisting Token Approaches to Indigenizing Education

The sixth theme recognizes that Indigenizing education is sometimes understood and realized in practice as trying to “fit” IKS into existing Western Knowledge Systems (WKS). As Blair and colleagues argued in Chap. 1, such token approaches can be seen through superficial recognition of holidays, or the “sprinkling” of Indigenous perspectives to spice up the curriculum through tokenistic, superficial and decontextualized activities or experiences. Racette in Chap. 3 noted “Indigenizing education is often seen as taking Indigenous content and teaching it through a Western lens to be evaluated in a Western reporting system. This is a common approach to the school systems, and I believe that it is a wrong approach.”

The case study in Chap. 6 revealed how such tokenism can occur, with examples of how preservice teacher participants thought Indigenous perspectives could be reduced down to isolated, chunked information or stories, sourced from anywhere (particularly online) and arbitrarily placed alongside the teaching and learning of chunked, Western science facts. Indigenizing education was viewed as “additive” by these preservice teachers: the addition of Indigenous facts or stories to untroubled Western science concepts as suggested by the Australian curriculum. There was little acknowledgement that to Indigenize education, the teaching and learning of science itself would need to be re-imagined and re-structured. Chapter 6 provided a table outlining four different approaches to including Indigenous perspectives and IKS in the teaching and learning of science: the contributions, additive, transformative and the community engagement approach (Table 6.1). These four approaches offer one way to map the terrain of the different mindsets, perspectives, actions and levels of community support and engagement associated with embedding Indigenous perspectives in curricula. Similarly, in Chap. 3, Wasyliw and Schaefer, drawing on Gaudry and Lorenz’s framework, illustrated that PHETE in Canadian universities mostly represented “inclusion and reconciliation,” rather than decolonizing. They argued that the perspectives of knowledge holders are expected to “fit” in existing PHETE curriculum and pedagogy rather than transform it. Each of these chapters exemplify that embedding Indigenous ideologies or perspectives requires a major shift in teacher consciousness (and practices in teacher education) to understand and respect the differences that underpin Western and Indigenous knowledge bases. Indigenizing education acknowledges IKS in their own right and understands the ideological differences between WKS and IKS.

Another way of looking at this theme was demonstrated in Chap. 2 by Blue. She demonstrates that sometimes, all that is required to Indigenize an activity is to add Indigenous perspectives. To apply an Indigenous perspective to financial literacy education, the needs of the participants were ascertained, and activities were developed that connected to local policies and procedures. Blue’s project provided an example of the importance of understanding the site/context and connecting activities to what is happening in that site rather than asssuming the needs of the participants.

Theme Seven: Resist Appropriating Indigenous Knowledges in Western Knowledges

The seventh theme focused our attention on the important distinction to be maintained in the project of Indigenizing education. Whilst we argue that embedding Indigenous perspectives and knowledges should be comprehensive and the concern of every educator, such knowledges do not become part of Western ideology nor essentialized into some form of pan-Aboriginality (such as a "quintessential" Indigenous curriculum). Educators need to acknowledge IKS as separate and distinct forms of viewing the world which are grounded in the country (traditional lands) in which they originate. They need to acknowledge the diversity and uniqueness of Indigenous peoples, histories and expertise. Educators must establish personal and professional connectedness and relatedness with Indigenous peoples in their local context and collaborate on the knowledges that will become part of the educational experience. This theme is tightly linked to many of the previous themes and so discussion about acknowledging the distinctiveness and importance of local Indigenous knowledges can be found in many chapters. As discussed earlier, Table 6.1 in Chap. 6 revealed how teachers typically align with the first two approaches of "contributions" and "additive"—a more superficial or essentialized understanding of embedding which leads to a lack of appreciation of the differentiation between each knowledge systems. Educators who work toward the last two approaches—transformative and community engaged—understand the distinctiveness of local knowledges and the importance of working with local Indigenous communities to embed local perspectives. This understanding can also be found in Chap. 7 where the process of Indigenizing education through Internationalization programs at the University of Regina centered on acknowledging the diversity and uniqueness of First Nations Canadians, their histories and expertise, from the lands near and upon which the university stands. In this case study, learning experiences were developed that explored true histories and openly discussed the mutual impact of contact and colonization and were taught by members of the different local Indigenous communities.

Theme Eight: Indigenous Framings of Nature and Humanity

The eighth theme takes a larger paradigm shift, acknowledging the imperative to move from the colonial dysfunctional, self-destructive and oppressive relationship with nature and the world's peoples, to one that values the important contribution that Indigenous perspectives and knowledges can make to humanity at this time. This requires understanding and acting in ways underpinned by relationality, interaction and reciprocity and our embeddedness in our physical, social, cognitive and spiritual environments. The importance of this theme was grounded in the Foreword by Pearl Duncan, setting the tone for the entire book, and returned to time and again across the chapters. It was central to Sammel's argument in Chap. 6 as it explored shifting

the conversations required within science education to shift from tokenistic additives to focus on relationships: those deep interconnections and relationality that link everything on the planet. Like common themes across Indigenous ideologies, this relational perspective highlights that humans are just one part of the biological fabric of life on Earth and acknowledges humans are incapable of existence independent of other entities. This chapter's central focus was that Western science needs to transcend reductionist thinking and be more relational in its enactment. As such, WKS still has much to learn from local IKS. Chapter 5 also explored how Métis communities, and arguably, other Indigenous communities, believe it is an essential pedagogical process to communicate how everything relates to each other.

In Chap. 4, a case study was recounted in which students were tasked with the challenge of (re)presenting typically misunderstood creatures as equal entities; creatures of significance with importance to humanity. As discussed earlier in this chapter, Tailby and colleagues argued that the *iDream* Challenge enabled an Indigenous reframing of humans and animals as *equal entities* in ways that Western science education rarely acknowledges. When you appreciate that you cannot harm a waterway, and everything that depends on it, the idea that pollution can be emptied into a stream as a commercial business decision is unthinkable. When you see a shark or a crocodile as part of your community, issuing commercial licenses to businesses to cull (kill) them is unthinkable. The contrast between Indigenous and non-Indigenous framings of nature and humanity is stark in these examples. The primary school students in the *iDream* Challenge understood the importance of their misunderstood creatures not only to themselves and their classmates but to all of humanity.

Theme Nine: Indigenizing Education Is a Shared Responsibility

The ninth theme recognizes that non-Indigenous educators are critical in influencing change within society as they represent the majority of educators in Australia and Canada. Non-Indigenous people need to understand they are inheritors of the colonial regime. Non-Indigenous allies need to be open to reflecting on colonial beliefs and practices in order to embrace different ways. They need to educate themselves about the distinctiveness of local and national Indigenous cultures, histories, knowledge systems, values and perspectives and then embrace them and make them part of our Nations' stories and part of their own teaching curricula. Non-Indigenous allies can become role models and help build cultural awareness and capabilities around First Peoples perspectives and histories. Calvin Racette, in Chap. 5, made a strong case for the role of non-Indigenous allies. He argued:

> non-Indigenous teachers become allies to the Indigenous community and are able to become the bridges to the Indigenous community. They build relationships with the children and to their families. It is these relationships that create optimal learning environments.

The chapter illustrated that it takes time for non-Indigenous allies to become proficient with both Indigenous knowledges and pedagogies, but the difference it can make for Indigenous children means it is an investment in education that must be made. To emphasize this importance, he states: “I have found that when Métis students and their culture are valued in a classroom, they become open to sharing their Métis knowledge and traditions. Therefore, if you work to create this safe space, much of the learning will come from the students.” As previously discussed and highlighted by Blue in Chap. 2, it is an educational commitment—a resourcing issue—that needs to be factored into the budget for delivering educational programs, rather than one that relies on the goodwill of Indigenous Elders. There are many resources available for educators to learn about Indigenous cultures. Educators are responsible for educating themselves about Indigenous perspectives, Bodle and Blue, in Chap. 9 point to the work of White et al.’s (2019) research about engaging and partnering with Indigenous parents and caregivers in an education context. The authors share five principles are for engaging and partnering with Indigenous parents and caregivers, and they include: relationality, togetherness, critical discernment, pro-activity and community (White et al., 2019). These learning principles focus educators’ attention on what is required when engaging with Indigenous people. For example, relationality highlights the importance of “working through relationships” in an education context, togetherness emphasizes a team approach, pro-activity signifies the need to have “an open and engaged mindset,” community is about knowing the local community and how they can be valued in educational contexts and partnerships, and lastly, critical discernment when choosing resources and teaching strategies is required (pp. 22–23).

The process model for embedding Indigenous knowledges illustrated in Chap. 8 (Fig. 8.1) acts as a roadmap for education stakeholders to see how their practices intersect and overlap within the cultural interface and what they can do to support Indigenous tertiary students with professional learning experiences. It indicates *where* the power and control lies to shape the experience of practicum of Indigenous preservice teachers, and therefore, *who* is implicated in ensuring the safe, supportive and enriched nature of this experience. Once again, it reveals the personal, professional and political commitment required of non-Indigenous people to be effective allies in Indigenizing education.

Theme Ten: Systemic Reorganization to Sustain Indigenizing Education

The final theme to be discussed here is a plea to all educators to commit to systemic reorganization and change. In order to support and sustain this important work, it is essential that educators reach out and form properly resourced professional learning communities with both Indigenous members and broader professional learning communities. Commit to learning from others and then share this learning. Chapter 2 has illustrated that to transform educational practices in classrooms that incorporate

Indigenous perspectives shared by Indigenous people, it requires an ongoing financial commitment in school budgets. Once funding is allocated to schools for establishing sustainable partnerships with Indigenous Elders and/or interested members of the Indigenous community, then setting up professional learning communities can be a real possibility. School leadership also has to value establishing forming sustainable partnerships with Indigenous people to transform curriculum by embedding Indigenous perspectives, as do the educators in the classroom. Relationship building between educators and Indigenous people involved in this partnership will also need to occur. Care is needed to ensure that taken-for-granted assumptions are not made about what can be accomplished within a certain period of time and to ensure that "one size fits all" approaches to embedding Indigenous perspectives are not followed. Once these sustainable partnerships are established, they may resemble critical participatory action research projects (Kemmis, McTaggart, & Nixon 2014). This is because the purpose of the partnership should be about transforming educational practices that are often irrational, unsustainable and unjust in some way. By irrational, it could be about the participants identifying the curriculum that ignores the existence and contribution Indigenous people have made in that area. The unsustainable component is connected to the typical circumstances that Indigenous Elders find themselves in without funding and commitment from school leadership to properly resource their participation, making the practices nonrenewable and exploitative. The unjust component relates how curriculum that does not include Indigenous perspectives may have an effect on how *all* students see the world and their understanding of society and social structures which continue to reinforce inequities that presently exist.

Chapter 5 speaks to the importance of educators to reach out and work with their local Indigenous communities. Racette, himself an Elder, believes it is a keyway for educators to Indigenize their teaching practice. He explains that it is important for educators to develop relationships within their local Indigenous communities.

> One way of doing this would be to spend time with an Elder and learn about Indigenous perspectives and teaching approaches. Not all teachers have access to an Elder but for those that do they can collaborate with an Elder about concepts that are mandated to be taught in a classroom, you can gain an understanding of these disciplinary concepts through an Indigenous lens and drill down into them and learn them. Once you begin to learn them, you begin to understand the processes of how to see the world from an Indigenous perspective. This perspective is underpinned by teaching interconnections and relationships (rather than isolated facts or information) which is very important not only to sustaining a culture, but also to sustaining the planet. By understanding the concepts we teach in Western schools, from an Indigenous perspective, a teacher can then incorporate and interpret these perspectives into their classrooms so they make sense to the learners".

However, he also cautioned that Indigenizing education should be regarded as not just adding Indigenous perspectives, or content, but also understanding the existence of, and appreciating the importance of enabling the use of Indigenous pedagogies. All educators should learn how to act in respectful ways with Elders and their communities. Educators can undertake to learn about the history of their area and become

involved in local events. By engaging with professional learning communities, educators can share knowledge (and frustrations), have fun and socialize together, while being supported in doing the tough work of educational change.

Concluding Thoughts

The ten themes discussed in this chapter represent some of the fundamental tensions and opportunities that can be identified when discussing what it means to Indigenize education. Each theme can be found, to varying degrees, interwoven throughout the projects and case studies presented in the middle eight chapters where the authors have shared their standpoints, knowledges and experiences to contribute to these important conversations about what Indigenizing education could look like in teaching and learning practices across our two counties. In doing so, we aimed to help support educators, to more deeply engage with the theory and practice of Indigenizing your own pedagogical practice.

We commenced this book from the standpoint that Indigenizing education is fundamental to honoring First Nations' human rights and unique Indigenous peoples' rights (UN, 2007). Many of the chapters within the book have outlined histories in each country of realizing the achievement of policies, strategies and resourcing to support the Indigenization of education, but in many cases, these journeys have been partial attempts, or poorly resourced, or reliant upon community goodwill to be sustained. As noted in Chap. 1, the majority of people employed in national education systems in Western countries are non-Indigenous (Howard, 1999; Milne, 2017; Whitinui, Rodriguez de France, & McIvor 2018), so the labor of Indigenizing must be taken up by non-Indigenous educators despite any reluctance to engage (Milne, 2017) or concerns about their "qualifications" to do so (McLaughlin & Whatman, 2015). The inertia that has to be constantly overturned around Indigenizing education is continually borne by Indigenous peoples who must continually dismantle educators' beliefs that it is not a non-Indigenous person's place to act in this space (McLaughlin & Whatman, 2015; Wilson, 2014, Nakata, 2011).

The Indigenous and non-Indigenous contributors to this edited collected have demonstrated powerfully in their respective contexts how every mis-assumption, every fear of "not doing it correctly," every form of complacency about whose responsibility it is to Indigenize can be turned around. They have modeled what Karen Martin (2008) has argued as essential to honor Indigenous standpoints, by unpacking social, historical and political contexts, privileging First Peoples' voices and lands, recognizing and respecting entities as equal and the relationality that is necessary with such recognition. What they also demonstrate is that it is an ongoing endeavor requiring more supporters, more resourcing, renewed strategic and disciplinary development and genuine systemic response. As educators, it is our personal,

professional and political responsibility to take up this work—as Penny Tripcony (2004) would say—it is everybody's business.

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