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Abstract

Looking deeply into our own community histories and learning from one another's experiences provides us with new paths into the future. By becoming aware of the patterns in community processes for cultural self-determination, and by sharing stories across communities, we can build on our strategies and our understandings of one another's solutions to create realities that reflect our local Indigenous values and practices. Similar community-transforming strategies may lead to very different outcomes, due to the profound diversity across Indigenous cultural settings. Indigenous communities that invest in taking risks to try new things and search for effective solutions to persistent issues will continue to grow the circle of beneficial innovation as they document and share their experiences. Understanding the successes of different Indigenous groups and learning how to make appropriate and responsive adjustments are important steps to accelerating cross-community diffusion of powerful, values-aligned approaches.

Keywords

Indigenous learning · Research-based educational interventions · Case examples · Community-based research · Culture-based education

Looking deeply into our own community histories and learning from one another's experiences and can provide us with new paths into the future. By becoming aware of the patterns in community processes for cultural self-determination, and by

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sharing stories across communities, we can build on our strategies and one another's solutions to create realities that reflect our local Indigenous values and practices. Similar community-transforming strategies may lead to very different outcomes, due to the profound diversity across Indigenous cultural settings. Indigenous communities that invest in taking risks to try new things and search for effective solutions for persistent issues will continue to grow the circle of beneficial innovation as they document and share their experiences. Both understanding the successes of different Indigenous groups and learning how to make appropriate and responsive adjustments are important steps in accelerating cross-community diffusion of powerful, values-aligned approaches.

The chapters in this section examine Indigenous experiences across formal and informal learning contexts, and each one is written to highlight case studies and case examples that provide nuanced detail about where they are situated. The accounts structured in this form offer a broader descriptive bandwidth than quantitative studies. The use of cases can help readers imagine and expand the potential adaptability of each vignette. Some of the authors have used case research methods to engage in deep internal observation, for example, to examine the challenges of moving away from practices that are widely accepted outside Indigenous contexts. Other authors included here have been influenced by the successes of distant Indigenous communities and adapted promising ideas for use in their own settings. An emergent theme across all of these quests is the search for patterns: understanding the patterns in our own process that help us to align with our shared values and seeing which patterns to carry forward that may help us continue to thrive.

There is a profound diversity that characterizes us as First Nations and Indigenous communities, and yet we have faced many types of parallel challenges, such as the effects of land loss, colonization, aggressive assimilation, and navigating collective and personal journeys through cultural trauma. We each have found our ways of discerning when to yield and when to resist the paradigms and practices of the dominant Western culture. In today's historical moment, we strategize to address the immanent changes brought by climate instability, looking to the past for ideas about how to adapt rapidly and survive as peoples. In recent decades, we have seen how our collective efforts can inspire one another to creative solution-building that brings about positive changes.

Step by step, we are returning to cultivating our own languages across generations, reclaiming our cultural lifeways, and starting to resolve some of the contradictions that have become pervasive in daily life. We step back to assess our efforts and wonder: Are our efforts getting results that matter? Are we doing things in ways that reflect our values deeply? Are we relating to one another in the ways our ancestors would have understood and respected? Are our children becoming a next generation who we can trust to carry our cultures forward?

The cases in this section recount in depth how First Nations and Indigenous communities are responding to questions like these, and others. They examine the patterns in their own processes – and account for the diverse perspectives that have influenced them; they dig deeper into the realm of reflection, to see how their

community initiatives are, and are not, rising to meet the challenges of modern local/global Indigenous life.

The case written by Jo-ann Archibald Q'um Q'um Xiiem entitled ► [Chap. 56, "Raven's Story About Indigenous Teacher Education"](#) uses storywork methodology to offer a rich example of how the Native Indian Teacher Education Program (NITEP) at the University of British Columbia (UBC) in Canada continues its over 40-year history of offering an Indigenous-based K-12 teacher education program. The NITEP includes partnerships with many Indigenous communities/organizations and has a rich history of Indigenous leadership that has shaped its purpose, philosophy, and structure including four key principles: a cohort-based family approach; community-based relationships; incorporating Indigenous Knowledge Systems in teacher learning; and high-quality preparation of teachers that spans different types of standards. These components derive from the character of Indigenous trickster, Raven, and they guide NITEP's vision of systemic change to ensure that Indigenous people have a better life within and through education. Working together to create the NITEP, Indigenous educators have constructed a culture-based model of teacher learning that looks deep within and stands as an example for how this type of innovation can be seeded and sustained.

Contrasting cultural perspectives appear side-by-side in the work of O. Ripeka Mercier, a Māori scholar, and Beth Leonard, a Dene'/Athabaskan scholar who co-teach a class for diverse Indigenous and non-Indigenous university students on Western science and Indigenous knowledge. In ► [Chap. 60, "Indigenous Knowledge\(s\) and the Sciences in Global Contexts: Bringing Worlds Together,"](#) the authors wonder together about the role of Indigenous knowledge in society during our time of cultural and climactic change. Mercier and Leonard consider with their students what makes Indigenous knowledge "Indigenous" and distinctly valuable, in a time when there is so much pressure to engage with decontextualized, colonized narratives about valid knowledge. In this research case carried out over the past 10 years, Mercier and Leonard describe how they structure a "shared space" within the course for students from two universities spanning the Pacific that allows all points of view to be heard. They invite frank discussion of how some scholars view science as a subset of Indigenous knowledge, and how others dismiss Indigenous knowledge as nonscientific. This discourse around Indigenous knowledge in science furthers their objective of providing science education support for marginalized groups, including the Māori, Alaska Native, and non-Indigenous students who they bring into conversation together across the distance. This case illustrates the type and quality of transformative learning interaction that can take place when an open, curious community of people is carefully brought together from diverse backgrounds, with varied perspectives, to build meaningful relationships, and consider urgent issues affecting the global human experience.

In ► [Chap. 61, "Mā te Rourou: Māori Education and Innovation Through the Visual Arts in Aotearoa New Zealand,"](#) Robert H.G. Jahnke and Huia Tomlins Jahnke provide a descriptive look at the evolution of the tukutuku form of lattice work lashing as it has spread from its original context embellishing the walls of tribal

houses on marae, to settings far beyond, including schools, galleries, institutions, and even the global forum of the United Nations. The diffusion and transformation of the tukutuku art form by artists in the twentieth century has been driven by increased interest and understanding of Māori visual arts traditions; it has both inspired and grown along with emergent educational approaches that are culturally rooted and innovative. The use of tukutuku lattice work patterns outside the marae has renewed interest in the traditional visual patterns and revived participation at schools and universities that encourage culture-based education and integrative pedagogies. Bringing together students, sense of place, and this traditional art form, along with new contexts for display and interaction, tukutuku has preserved its place in the Māori canon, and also evolved and gained a new standing in contemporary art. The journey of tukutuku shared in this case stands as a valuable model of how traditional techniques can be carried forward as deeply connected cultural templates for the creativity and viability of future generations.

► [Chapter 57, “We Voyage for the Earth: Cultural Advantage as a Global Education Framework,”](#) authored by Shawn M. Kana‘iaupuni, directs us to acknowledge the power of the Mālama Honua Worldwide Voyage as a landmark achievement that represents what becomes possible when communities take control over their educational systems. As the fruit of many years of culture-based education at many Hawaiian-focused charter schools, the global voyage of the Hawaiian canoe Hokule‘a was accomplished as the result of an educational movement that recognized Indigenous students’ fundamental cultural advantage. Unlike Western schools that falsely “prove” these students are underachieving on standardized test measures and then set habitually low expectations, culture-based education initiatives emphasize Indigenous learners’ cultural assets and build on those strengths and the resilience within their cultural identity to help them grow. Kana‘iaupuni argues that one cannot underestimate the value of community-based research and leadership that embraces the cultural advantages of students who have diverse experiences of resilience, spirituality, and strength, on the one hand, along with racism, poverty, cultural trauma, and oppression on the other. Using theories, methods, and approaches that highlight the assets found in Indigenous knowledge, values, and stories as models of vitality and empowerment for all, culture-based education is an innovation worth researching and sharing. As the result of a nationwide Hawaiian movement toward culture-based education with diverse approaches to culturally vibrant and identity-affirming learning environments, Mālama Honua Worldwide Voyage reveals that Indigenous communities have the power to reach across space and time to connect and inspire one another.

Rooted in a Māori worldview, the case described by Mere Berryman, Katie Pennicot, and Stan Tiatia follows a new leadership team in one Aotearoa New Zealand primary school who successfully disrupt the status quo expectation that, from entry at age 5, the gap in achievement between Indigenous and non-Indigenous students would only continue to grow. ► [Chapter 62, “Te puna wai ora, e tu atu nei e: Stand Up, Stand Strong, and Be Proud”](#) tells the story of 6 years of change efforts, aimed at encouraging Māori contexts for learning in the schools and the development of school leaders’ beliefs and practices in alignment

with Māori principles. Eventually, the school was recognized as a finalist for the Prime Minister's Excellence Awards in Education, and perhaps more importantly, a cohort of Māori students were spared the pathologizing "deficit" model in favor of a culturally coherent priority on whānau (extended family), relationships, and core values which formed the foundation for academic and interpersonal success. The school pioneered the practice of listening to iwi (tribal group) perspectives about the direction of English-medium education for Māori learners, and in turn placed greater value on intergenerational Māori learning. Challenging the historical educational assumption that Māori and Pākehā children were being prepared for different life trajectories, the transformational leadership of the team at Invercargill Middle School showed undeniably how the development of Mauri Ora (life force) for Māori students is beneficial for academic success, and that it may also be of benefit for non-Māori students.

Jean-Paul Restoule's piece, ► [Chap. 63, "Where Indigenous Knowledge Lives: Bringing Indigenous Perspectives to Online Learning Environments,"](#) highlights two cases that show the opportunities, challenges, and limitations of designing Massive Open Online Course (MOOC) materials focused on the topic of Indigenous worldviews. Restoule designed and researched the course, which was meant for principals in First Nations schools across Canada; his aim was to invite learners of diverse backgrounds and worldviews to engage with Indigenous knowledge traditions in respectful and perspective-expanding ways. Going deeper than the surface-level features of Indigenous knowledge that typically find their way into online learning, Restoule sought to create meaningful exchange between participants while maintaining a culturally appropriate tone for all in the decontextualized online space. Elements of land-based, community-first, and relationship-driven learning were incorporated, as well as an expectation of whole-person engagement that called for openness to spiritual, emotional, intellectual, and physical dimensions of narrative experience. One goal of the courses was to challenge divisive colonialist legacies by rising above historical divisions – to connect through a sense of shared struggle and to honor personal narratives and community stories of cultural resurgence. In this work, Restoule calls upon us to know the limitations of the digital medium and also to see its potential: to awaken participants to the power of coming together across lines of difference to inhabit the dual role of learner and teacher through interpersonal experiential learning.

The reciprocal and simultaneous role of ako, to learn and to teach, is at the heart of Sandra L. Morrison's chapter on Indigenous education in the adult workplace – ► [Chap. 58, "Ako ki he nofo 'a Kāinga: A Case Study of Pastoral Care Between Wakatū/Kono and Recognised Seasonal Employment Workers".](#) In this chapter, Morrison describes the kinds of essential supports needed by those entering a new country as labor migrants, so that they can healthfully adjust to their new workplace and home. Within a strongly capitalistic society where human labor is treated as a commodity, respect for different cultures must be negotiated; some employers offer only the minimum transition services, while others adopt a more caring "family" model of structural support. Morrison describes in detail the case of a Māori employer and their interactions with immigrant Tongan Recognised Seasonal Employment workers who participated in a successful pastoral care model based on ako (to learn

and to teach) and *kāinga* (kin, village, place) – a model that strengthened their formal business relationship through mutual respect for shared values, including genealogy (*whakapapa*). The intentional application of Māori values and worldviews allowed room for the Tongan workers to contribute their cultural capital to the interaction, demonstrating the kinds of positive outcomes that can emerge when consideration is given to common values such as kinship across culture, space, time, and generations.

Set within an Aboriginal Australian context, Daryle Rigney, Steve Hemming, and Simone Bignall chronicle a community journey in ► [Chap. 59, “Ngarrindjeri *Yannarumi*: Educating for Transformation and Indigenous Nation \(Re\)building.”](#) The term *Yannarumi* refers to a Ngarrindjeri concept meaning “to act or speak lawfully as a country” and is fundamentally connected to understandings of peaceful relations and well-being. Since the early 1970s, the Ngarrindjeri people have built an active, resistive, and transformational educational program designed to produce the conditions for community thriving and self-determination – one that is based on Ngarrindjeri knowledges, experience, language, and philosophy. *Yannarumi*, in association with the broader nation building and governance strategies currently practiced by the Ngarrindjeri, is presented as a case study in educating for resistance and transformation. Ngarrindjeri leaders have consistently exercised and asserted their right to “speak as a country” in establishing a peaceful, healthy, and just way of life. The community aspiration is to establish a state of “ex-colonialism,” and while the setting and terminology are unique, the steps of their journey may inspire other communities of Indigenous people who are seeking their own methods to transform the colonial legacy and establish a new equilibrium in educational systems that are self-governing and culturally sustaining.

In ► [Chap. 64, “Whāia te Ara Whetu: Navigating Change in Mainstream Secondary Schooling for Indigenous Students,”](#) researchers Elizabeth McKinley and Melinda Webber describe the design and implementation of a long-term secondary school research intervention called the Starpath Project for Tertiary Participation and Success. Aiming to remedy long-standing issues in some of Aotearoa New Zealand’s most underserved communities, the Starpath Project sought to increase Māori students’ university entrance by changing school pedagogy and improving opportunities for learners. Special learning support was provided for school leaders along with direct assistance to enhance school quality, while students received counseling support and guidance in academic target setting. Starpath encountered a number of challenges, including changes to policy that made their key metric of university entrance even more difficult for students to attain. Analysis of data showed that the results of the intervention were mixed, due at least in part to unexpected policy changes and to the lifetime of unequal access to educational resources that most students had experienced. Māori students in mainstream schools who do not have access to culture-based learning may require additional levels of support in pursuit of academic success. This case illustrates how Indigenous communities seeking to correct long-standing educational inequities may want to reflect deeply on their implicit assumptions about how positive changes take root in their context, and consider as well adopting extended timelines for longitudinal interventions so that sufficient time can be devoted to changing student experiences and the institutions that shape them.

When a group of Diné (Navajo) culture and language teachers identified their priorities for systemic educational change, Zanette Johnson and Sharon Nelson-Barber noticed they frequently mentioned the constraints of adhering to “best practices” as a significant barrier standing in the way of meaningful innovation. Observing and inquiring more deeply about this phenomenon with the teachers led Johnson and Nelson-Barber to report their findings in ► [Chap. 65, “Always Alert, Always Agile: The Importance of Locally Researching Innovations and Interventions in Indigenous Learning Communities.”](#) A case example from Diné school contexts points out how the research-based “best practice” of Comprehensive School Reform (CSR) limits the range of learning for Diné students and teachers. A contrasting case example based in Hawai‘i presents another school’s quest to go beyond generalized research and enact locally tested strategies that were culturally compatible. The authors argue that within Indigenous community settings, scientific research is being overgeneralized and misapplied, because it is unreasonable to assume that interventions that work for the general population are appropriate for communities with unique historical factors and cultural contours. As seen in the case examples, the unexamined use of research-based intervention can lead to limited results for Indigenous learners and may be actively counterproductive by inhibiting achievement and discouraging deeper learning experiences. Indigenous-serving educational institutions are poised to strengthen learning in their communities. They must enact a standard of iterative and empirical research that uses varied methods of assessment and a range of vantage points to locally confirm results and to adapt strategies in response to the distinctive populations they serve.