Tackling the Wicked Problem of an Evolving Curriculum: A Case Study on Social Studies and Treaty Education in Nova Scotia

Alexandra Pulchny, ORCID iD: https://orcid.org/0009-0006-6731-5092
Department of Sociology, McMaster University, Canada

Abstract: An "evolving curriculum," characterized by dynamic integration of updated, culturally relevant resources and stakeholder autonomy, embodies a "wicked problem" in education as one that resists simple solutions due to its complex, interconnected nature and the influence of entrenched values. Using research conducted on Treaty, Mi'kmaw Studies, and Social Studies education in Nova Scotia as a case study, this research illustrates the challenges of incorporating Indigenous perspectives into curricula traditionally dominated by Eurocentric norms. Addressing these wicked problems requires more than curriculum revisions; it demands a collaborative effort among educators, policymakers, and communities to navigate systemic issues and foster an inclusive, equitable educational environment. This approach is essential for creating curricula that reflect diverse perspectives and respond to evolving societal needs.

Keywords: Wicked Problem, Curriculum, Treaty Education, Social Studies, Nova Scotia

Introduction

In the context of education, an *evolving curriculum* is a dynamic and adaptable framework that integrates continually updated, culturally relevant resources with autonomy for teachers and students, fostering meaningful engagement and contextual learning. This concept is a quintessential example of a *wicked problem*, capturing the complexity, interconnectedness, and persistent challenges inherent in such educational developments. Wicked problems are characterized by their resistance to straightforward solutions due to their multifaceted, complex nature (Rittel & Webber, 1973; Roberts, 2000; Zhao et al., 2019) and the influence of entrenched values and norms. By applying this framework to curriculum development, we can better understand how Eurocentric values, norms, and expectations have historically shaped educational systems and continue to influence contemporary practices, and how we can move forward to support an evolving curriculum in all subjects and disciplines.

The notion of a *curriculum problem* encompasses the content of curricular documents, the processes of their implementation, and the ongoing difficulties educational stakeholders face in their practice. These problems are not merely technical issues but reflect broader societal tensions and conflicts, particularly those related to historical injustices, societal expectations, cultural biases, and institutional organization. In this context, an evolving curriculum must be seen as a dynamic, multifaceted process that requires continuous engagement and negotiation among various stakeholders, including curriculum and policy developers, educators, students, and their broader communities.

Curricula in Treaty Education, Social Studies, and Mi'kmaw Studies in Nova Scotia are excellent examples of these principles. Educators address historical and ongoing injustices within these course areas by incorporating Indigenous perspectives into the curriculum. However, this process reveals the complexities of reconciling diverse viewpoints and values within an educational framework that Eurocentric perspectives have long shaped. The persistent challenges in implementing Treaty Education reflect the broader wicked nature of curricular development and maintenance. These challenges include overcoming resistance to change, aligning with existing educational structures, and ensuring meaningful collaboration with Indigenous communities.

Thus, evolving the curriculum to address these challenges demands more than just revisions to educational content. It requires all stakeholders to collaborate in addressing the underlying systemic issues as they navigate the tensions, challenges, and needs of a constantly changing society. The educational system can become truly inclusive, equitable, and reflective of diverse perspectives and experiences through such an approach.

This article is divided into several sections, beginning with an analysis of the wicked problem in the context of educational research and curriculum development and implantation. The analysis explores how

practitioners can apply the concept of the wicked problem in building and maintaining an evolving curriculum. The methods section details the research approach used to investigate the evolving curriculum in several of Nova Scotia's social science courses. The findings section presents insights from educators on the curriculum problem, focusing on their experiences with the curricula and challenges they face in implementation and professional development. The article ends with a discussion of the evolving curriculum in the context of treaty and Indigenous education. It also offers policy implications and recommendations for integrating diverse perspectives into educational initiatives.

The Wicked Problem of Curriculum Development and Implementation

The concept of the wicked problem was coined by Rittel and Weber (1973). It has been used by educational researchers to investigate complex issues within education and consider how educational issues might exemplify wicked problems (Bore & Wright, 2009; Jordan et al., 2014; Krause, 2012). Rittel and Webber (1973) describe two types of problems: tame (benign) problems and wicked problems. Wicked problems are inherently different from tame problems in that they include public policy issues such as the development of highways, adjusting tax rates, and modifying school curricula. The term wicked is used not because the problems are ethically appalling but rather because they are a persistent cycle, tricky to identify and solve, and can have negative impacts in the long term if not addressed. Rittel and Weber (1973) identify ten characteristics of a wicked problem, nine of which will be addressed in this article:

1. There is no absolute formulation of a wicked problem.
2. Wicked problems have no stopping rule.
3. Solutions to wicked problems are not true or false but good or bad.
4. There is no immediate nor ultimate test of a solution to a wicked problem.
5. Every solution to a wicked problem is a "one-shot operation," and every attempt counts significantly.
6. Wicked problems do not have an enumerable set of potential solutions, nor is there a well-described set of acceptable procedures that can be incorporated into the plan.
7. Every wicked problem is essentially unique.
8. Every wicked problem can be considered a symptom of another problem.
9. The existence of an issue that represents a wicked problem can be explained in numerous ways, and the choice of explanation can determine how the problem is addressed and resolved.

Roberts (2000; Zhao et al., 2019) described three primary approaches to solving wicked problems: (a) under an authoritative approach, decisions are made in a top-down process by designated groups of experts. It leaves little room for collaboration, and it is unclear whether the group of experts are the best individuals for the job; (b) the competitive approach involves various groups of individuals who are competing for the winning solution – this approach can support idea generation, but it can lead to potential conflict among groups and can consume more resources; and (c) the collaborative approach brings various stakeholders together to work toward an agreed-upon solution. In the short term, the collaborative approach may appear slower and less ordered than the other two. However, the outcome can create workable solutions that are more widely understood and accepted.

Historically, educational decision-making has followed the authoritative approach. Decisions on what to measure or how to teach curricula have often been made by a group of *representative experts* brought together by educational and governmental agencies (Zhao et al., 2019). Bore and Wright (2009; Jordan et al., 2014) argue that addressing problems in education relies too heavily on finding technical rational solutions, which tend to neglect reflective practices that involve problem meaning and sense-making. Emphasizing a technical rational approach means ontological perspectives risk being ignored, which Bore and Wright (2009) believe is required for critical problem identification/definition. Thus, wicked problems can only be addressed through flexible, dialogical spaces that encourage people from various backgrounds with radically different worldviews to engage in dynamic conversations and collaboration (Corbett & Tinkham, 2015), which aligns well with the collaborative approach.

The concept of wicked problems helps us understand and dissect the concept of an evolving curriculum through a lens that recognizes the deeply rooted Eurocentric values, norms, and expectations that have shaped

countless educational systems worldwide. More specifically, I use the phrase curriculum problem to describe curricular documents, their implementation processes, and practices that persist as a topic of interest among educational stakeholders and face persistent issues.

The curriculum encompasses the content taught, the structure of the classrooms, and the school environment outside of the classroom; this includes how students interact with one another, interactions between students and faculty, and how students are engaged with learning material outside of classroom-based lesson plans. An evolving curriculum is a dynamic and adaptable educational framework characterized by continually updating and refining teaching and learning resources to ensure they remain authentic, culturally and socially relevant, as well as reliable. It is perpetually in a state of flux that requires ongoing maintenance. An evolving curriculum emphasizes autonomy for and collaboration between teachers, students, and stakeholders, fostering a classroom environment where educators and learners can shape the learning experience. The curriculum prioritizes meaningful engagement by encouraging students to connect their lives and the content being studied. Such a curriculum promotes learning in context through discussion, debate, and verbal analysis. It also supports self-reflexivity in teaching and learning, enabling teachers and students to critically evaluate and adapt their approaches for deeper understanding and relevance.

Methodology

This article draws on Pulchny (2020) to discuss how an evolving curriculum can be used to address a curriculum problem. This research combined a strong theoretical base of critical theories and decolonizing methodologies with a qualitative inquiry into Nova Scotia's public high school social science courses. Pulchny (2020) used discourse analysis to examine curricular documents developed by the Department of Education. This research project also employed informal semi-structured interviews to investigate educators' experiences and perspectives on engaging with the curricula.

Ethical Protocols

Acadia University's Research and Ethics Board (REB) granted research ethics approval to conduct qualitative research with human participants. I did not require ethics approval from the Department of Education as my interviews with educators occurred outside of working hours and outside of the school setting. Additionally, I did not conduct research within Mi'kmaw communities, and I did not focus on the collection and analysis of traditional knowledge. My research focused on the professional opinions and experiences of educators in the public school system. Although my research covered a professional landscape, I still believed it necessary to apply for ethical approval from the Mi'kmaw Ethics Watch (MEW) should any of my participants identify as Mi'kmaq, and/or should they share traditional knowledge and practices of Mi'kmaw people.

Data Collection

Discourse analysis. This research employed discourse analysis to explore how the outcomes outlined in curricular documents influence what educators teach and how the language of curricular documents translates into lesson plans in classroom settings. Discourse analysis emphasizes investigating written and verbal language in social contexts, particularly language used in media texts and documents. It encourages researchers to focus on the language and written text used and the social situation or setting in which it occurs (Neuendorf, 2002; Salkind, 2010).I analyzed several curricular documents: Citizenship 9 Guide (2018), the Treaty Education Framework for Curriculum Development (2017), and the Mi'kmaw Studies 11 Curriculum Guide (2016).

Interviews. I conducted semi-structured, informal interviews for the second half of my data collection. Semi-structured interviews allow for a narrative-based approach to research and aid in analyzing research subjects' opinions, behaviours, experiences, and emotions.

Participants were collected through snowball sampling; at the end of each interview, I asked the participants if they could refer me to individuals who align with the research and might be interested in participating. This method of participant collection has its benefits and drawbacks: On the one hand, the referral process conveys researcher trustworthiness to potential participants. On the other hand, referred and

recruited participants may be too similar to one another to allow for diverse perspectives in the research (Esterberg, 2002).

Recruitment requirements helped to ensure that participants represented varying teaching experiences, genders and cultural backgrounds. These requirements included only selecting participants who currently teach Mi'kmaw Studies 11, Citizenship 9, or social studies courses between Grades 8-12. To ensure confidentiality, participants were anonymized and chose their own pseudonyms. Additionally, any geographic locations, schools, and Mi'kmaw communities mentioned in the interviews were either redacted or referred to by pseudonyms. Table 1 outlines the demographic information of the research participants.

Table 1: Table of Named Respondents

Pseudonym	*Position*	*Gender*	*Identified Ethnicity and Cultural Background*
A.D.	PHS Social Studies and Mi'kmaw Studies Teacher	Male	White
Daphne	PHS Arts and Mi'kmaw Studies Teacher	Female	White
B.G.	PJHS/PHS Arts and Citizenship 9 Teacher	Female	Mixed heritage
Lia	PHS Social Studies, Canadian History Sociology and Mi'kmaw Studies Teacher	Female	White; Scottish heritage
Mavis Thornhill	PHS Citizenship 9 and Economics Teacher	Male	Caucasian

**PJHS = Public Jr. High School*
**PHS = Public High School*

Data Analysis

Memo writing. I wrote memos at every stage of the research process, which helped me develop and report my results and gave me a sense of my research's limitations and future contributions to the study area. Memo-writing is a fundamental step between coding interviews and the first draft of completed results. It helps elaborate on hidden assumptions, processes, and actions within the codes (Charmaz, 2004) Through my memo-writing process, I began considering the concept of an evolving curriculum.

Interview Coding. I used a mix of line-by-line coding and focused coding. Such coding allowed me (a) to engage with the data through a critical and analytical lens, and encouraged me to think about the material from a perspective that may differ from the participants' interpretations of the topic and their responses (Charmaz, 2004); and (b) to take frequent themes/codes from the initial coding process and use them to analyze the rest of my transcriptions (Charmaz, 2004). In my first round of coding, I gave a code to each sentence or two sentences together and made margin notes when I had further thoughts and questions. The second round was more focused as I narrowed down recurring themes and reconsidered how my notes related to themes. I revisited each transcription several times until I was exhausted by all noticeable themes.

The Curriculum Problem Through the Lens of Social Studies Educators in Nova Scotia

This section provides a glimpse into the results of the abovementioned study as they pertain to the concept of the curriculum problem. It includes a discussion of participants' thoughts on the definitions of curriculum and their experiences with professional development for curriculum implementation. It also explores participants' reported experiences in searching for authentic and relevant resources and their thoughts on the community-classroom connection.

Defining Curriculum

I asked participants how they define curriculum and understand it as a concept. They first explained it as a set of guidelines or outcomes that educators must meet with their teaching. After providing their *dictionary definitions*, they described the concept in ways that reflect their experiences working with curricular documents. For Mavis,

> [Curricula] gets kind of watered down and refined into a set of almost checkboxes. I've gotta get the students to show me that they can demonstrate and understand some kind of material or show me some skills that we've worked through, can we check that box, are we able to write a paragraph and inform me of how they truly feel about certain subject matter[.]

Participants explained that a curriculum is something educators should make their own and can shape to suit the needs of their classrooms while meeting the necessary outcomes. For A.D., the curriculum is both a starting point and a target or goal the educator is trying to reach. He explained that teachers need to put a personal spin on the subjects and courses they teach and that "[curricula] needs to be open ended enough that you can put your own spin on it and make it relevant to the kids you teach and the community you live in."

B.G. noted that curricula have been "everything from very loosey goosey to absolutely nailed down, from, here are the resources to make them up yourself […] Which is fine for me." Participants noted that meeting curricular outcomes often comes with time constraints and unrealistic expectations; B.G., for example, explained her experiences with a Social Studies 11 curriculum that had 70 required outcomes, to be met within 40 weeks or less:

> […] some of the outcomes would be things like "explain how women were empowered between the first and second world war." And the kids are supposed to do that TO MASTERY, and so I spend the first three months of the year getting them to learn what the word empowerment means, and then I am also supposed to infuse that into social history so they know what happened in the first world war, know what happened in the second world war, and why women were in the situation to not be empowered but then were empowered, so that's one… and now there are 69 others.

B.G. noted that although Social Studies 11 is being phased out to make room for a lead-up to Citizenship 9, issues of time and excessive outcomes remained for many subjects, particularly those within the social sciences. However, Lia argued that although curricular documents are outcome-based, "[…] the expectation is that you won't meet all of them," yet many educators identify struggles with meeting them all in the defined timeframe. My participants tried their best to meet all outcomes, prioritizing those that require more teaching.

Participants consider the curriculum as both a framework and a flexible tool, embodying the principles of an evolving curriculum. Mavis's concerns about curricular constraints echo the dynamic nature of an evolving curriculum, which thrives on continual adaptation and refinement. A.D.'s and B.G.'s comments highlight the importance of contextualizing learning experiences to resonate with students' lives and communities, fostering meaningful engagement. Despite the challenges posed by defined outcomes and time limitations, my participants demonstrated a commitment to self-reflexivity and collaboration, ultimately striving for authenticity in their classrooms. If curricula are to remain relevant and impactful in a rapidly changing educational landscape, then teachers must engage with the curriculum as an interplay between the structure and flexibility. Professional development is crucial in equipping teachers with the skills and knowledge needed to adapt their pedagogy and effectively engage with flexible curricula.

Professional Development

Three out of five participants felt they received little to no preparation to use both the Mi'kmaw Studies 11 and Citizenship 9 curricula. The other two participants, Mavis and Lia, believed the professional development they received and their teaching experience prepared them quite well. Lia believed the Mi'kmaw Studies 11 curriculum rollout should be a model for future curricular rollouts, as they were given the opportunity to collaborate with other educators; this included setting up a Moodle, which is an online space for teachers to share questions, answers, upload lesson plans, videos, etc.

However, several participants believed they could have received more professional development for both courses. According to B.G., the Citizenship 9 curriculum was "nebulous" and was accompanied by very little preparatory training:

> For the first time ever in my several decades of teaching that I was told that it was DIY professional development, go to an online course on your own time if you want, and so I remained in discussion boards with other teachers who were struggling. Everyone was struggling because the only people who really knew whether they were on the mark for how to start the year were people who had piloted it before and even then they had quite intensive supports in their piloting year and then they became the people who were expected to help others, and that sometimes proved to be a challenge […]

While this online community of teachers created through discussion forums may be a useful support mechanism, B.G. witnessed educators struggle with the course when September arrived. B.G. reported that many educators dropped out of the discussion board because they struggled to find their own direction for the course.

Ultimately, there appears to be a divide in how prepared participants feel to implement the Mi'kmaw Studies 11 and Citizenship 9 curricula. While Mavis and Lia benefited from collaborative professional development, three others expressed a lack of preparation. B.G. highlighted the challenges educators faced without adequate support, emphasizing the necessity of structured professional development for practical curriculum interpretation and implementation. Supporting teachers and their professional development is crucial for creating a responsive, relevant, and impactful curriculum, ultimately enhancing student engagement and educational achievement. Administrators must ensure that teachers have access and are encouraged to attend professional development opportunities. In addition to engaging in professional development, teachers must also focus on finding authentic and relevant resources that align with their evolving curriculum and the diverse needs of their students.

Searching For Authentic and Relevant Resources

Only one participant, Lia, commented positively about the resources for Mi'kmaw Studies 11. She noted that the resources in the curriculum were updated and included some important stories and documents. Other participants noted that "[…] the resources aren't there […]" (Daphne), and/or are outdated and inaccurate. Educators constantly search for authentic, reliable resources, whether physical documents or community connections. A.D. noted that although several barriers exist when teaching Mi'kmaw Studies 11, "the biggest barriers are access to resources, and resources that are actually accurate and reliable." A.D. often encountered historical and cultural inaccuracies when searching for sources to share with his class. This was also an issue noted by Mavis and B.G. when they pulled together resources for Citizenship 9.

The different experiences of resource availability and accuracy expressed by the participants may be influenced by differing views of what counts as accurate knowledge and/or influenced by their personal connections to the teaching content and Indigenous communities. For example, Lia spent more time communicating and building one-on-one connections with Mi'kmaw community members and Mi'kmaw Studies 11 curriculum developers. Given her connections to the community and curriculum developers, Lia may have held a more positive perspective of the resources compiled for the curriculum.

Teachers are faced with the issue of not having access to applicable, up-to-date textbooks. A.D. noted that he did not like using textbooks, but having one that applies to the classroom lessons would be beneficial. B.G. and Mavis noted that Citizenship 9 has a textbook, but educators tend to use resources outside of the text. Although they tried to use the suggested resources, they often turned to outside sources, including the Internet, personal libraries, and community contacts. Educators also looked to expand their pedagogical practices by stepping outside of the classroom confines. For example, A.D. tried to take his students outside to learn in nature. Similarly, Lia incorporated community engagement through attendance at events like powwows to stress the importance of cultural awareness and connection.

Daphne emphasized a lack of funding for relevant and reliable resources as a key issue, noting that the cost of multiple books and resources adds up quickly, and "[…] no school is so rich that they can just buy

$400 worth of books[.]" When a school cannot provide funding for resources, educators often turn to the internet for free content. Daphne took this route, turning to CBC News's Indigenous section for content pertaining to current events across the country, including examples of the Indian Act and residential school legacies. Unfortunately, Daphne was often met by a paywall when attempting to access relevant resources through the website. When she asked about a subscription, she "[…] was told it was $1700 a year because I can't get just one license for me, I basically need a license for the entire school!" Not all educators emphasized a funding issue as several found themselves using their own personal resources. Participants noted that schools will provide certain amounts of funding for field trips and guest speakers, but this varies from school to school. While funding remains a significant barrier to accessing resources, another critical aspect educators highlighted was the importance of fostering strong community connections to effectively teach Indigenous cultures and histories.

Community-Classroom Connection

All participants emphasized the importance of community engagement in educating students about Indigenous cultures, knowledge, and histories. Participants identified building relationships with community members as an initial step. Within such relationships, teachers felt they could then invite community members to visit classes and request invitations from community members for classes to visit the communities. Lia noted that community engagement benefits student attitudes and belonging, as it helps Indigenous students connect with their culture and helps non-Indigenous students develop understanding and respect. Similarly, Daphne explained that she would like to see schools put more funding into learning experiences that engage students actively with their lessons and expose them to Indigenous cultures, ways of knowing, and teaching practices instead of learning from books.

All participants invited elders, knowledge keepers, and community stakeholders into their classrooms to teach their students, to ensure the content was communicated appropriately to students so that students developed connections and genuine understanding. However, Daphne made an important point when speaking about the process of finding individuals to visit schools. She noted that when contacting Mi'kmaq Peoples, educators must have a great amount of respect and consider peoples' personal lives:

> [...], we shouldn't just assume that people in the Mi'kmaw community are searching for opportunities to sit in a classroom and tell students about what their life was like growing up. We need to respect the fact that they probably need to pay for their lives somehow and they might have to take a day off work, they might be struggling to find work, and you know is there not something that the government can do to help support those first hand experiences so that it is not so easily dismissed as you know just one story?

Educators and administrators should not assume people from Mi'kmaw communities are willing and able to visit their classes, nor should they assume, they will be comfortable having classes visit the communities. Community engagement thus involves collaboration, relationship-building, and understanding the community's and their members' needs.

Addressing an Evolving Curriculum as a Wicked Problem

The study of Treaty Education, Social Studies, and Mi'kmaw Studies in Nova Scotia is framed as a curriculum problem due to the persistent challenges in developing and implementing curricula that authentically include Indigenous Knowledges, languages, cultures, and histories. This issue highlights the ongoing struggle within Canadian educational institutions to integrate these essential perspectives (Battiste, 2013, 2016; Battiste & Henderson, 2009; McGregor, 2017; Milne, 2017). An evolving curriculum embodies many characteristics of a wicked problem: it is inherently complex, multifaceted, and requires continual reworking. Addressing this problem requires collaboration among educators, curriculum developers, and community stakeholders. Developers must incorporate students' and their communities' diverse cultural and sociodemographic needs.

Decolonizing methodologies are crucial in addressing the curriculum problem described above by challenging the traditional Eurocentric frameworks that dominate educational systems. This approach calls

for the inclusion of Indigenous Knowledges, emphasizing a shift away from colonial narratives and power structures embedded in educational content and practices (Kanu, 2005a; McGregor, 2017; Tuhiwai Smith, 2021). By employing decolonizing methodologies, schools can actively foster a synergistic relationship between Indigenous and Eurocentric ways of knowing (Battiste, 2013), recognizing the importance of Indigenous languages, histories, and worldviews as legitimate and foundational to the curriculum. This process requires a critical examination of how knowledge is produced, valued, and shared, ensuring that Indigenous voices are not only heard but also given space to shape the learning process in meaningful and transformative ways. Ultimately, the goal is to dismantle colonial legacies within education and create a space where Indigenous knowledge systems are not simply added to curricula but are integrated in ways that reflect their centrality to the learning process (Kanu, 2005b; Battiste, 2013).

Educators are key agents of change who engage consistently with the curriculum. Their firsthand experiences position them to identify gaps, assess student needs, and advocate necessary updates to resources and teaching materials. However, my research reveals significant participant concerns regarding their access to relevant and effective professional development. Many educators expressed frustration over the lack of structured support that aligns with the evolving nature of Indigenous curricula, emphasizing the need for tailored professional development to address these challenges. The lack of effective professional development contributes to the wicked nature of this problem. As educators struggle to keep pace with an evolving curriculum, they face complex challenges in integrating Indigenous perspectives without adequate support, making it difficult to achieve lasting, transformative change. To effectively tackle this problem, we must ensure classroom insights inform curricular decisions. Fostering an ongoing dialogue between educators, stakeholders, and curriculum developers is crucial in this endeavour. Professional development initiatives must prioritize accessibility and relevance, enabling educators to engage critically with Indigenous perspectives and integrate them into their teaching practices.

Conclusion

The findings from this research illustrate the complexity and interconnectedness of curriculum development, highlighting how historical inequities shape contemporary practices. Recognizing these dynamics is crucial for effective educational reform, as they influence the creation and implementation of curricula that genuinely reflect diverse perspectives. Jordan et al. (2014) apply the wicked problem framework to issues in literacy learning by framing these challenges as complex, ongoing, and resistant to simple solutions. They advocate addressing these wicked problems through continuous observation, diverse stakeholder conversations, and collective sense-making within the educational community (Jordan et al., 2014).

Collaboration among educators, policymakers, Indigenous communities, and other stakeholders is essential for fostering meaningful change. Ongoing dialogue and shared responsibility are necessary to integrate diverse perspectives into educational frameworks authentically. To foster a culture of continuous learning and adaptation to meet the evolving needs of students and communities, it is important to prioritize decolonizing professional development opportunities. Such opportunities equip educators with the skills and understanding to engage with Indigenous Knowledges, histories, cultures, and communities in a Trans-systemic Knowledge System (Battiste & Henderson, 2021) that offers a synergy and wholeness between Indigenous and Eurocentric Knowledge systems.

This study advocates practical educational initiatives incorporating diverse perspectives into curricula, such as using culturally relevant materials and experiential learning methods. Educators could employ project-based learning, collaborative group work, and experiential learning to foster deeper engagement with these perspectives. Furthermore, teachers could receive training in culturally responsive teaching strategies to adapt their methods to the needs of diverse learners. Policy changes are essential to support this initiative. Such changes involve adapting standardized curricula to reflect regional and/or local histories and realities, allowing for more personalized learning experiences. This process necessitates active collaboration with community members and leaders to ensure all voices, histories, and knowledges are appropriately represented. Policies could also prioritize funding for schools in marginalized and at-risk communities, ensuring they have the resources to effectively implement inclusive educational practices. Such changes empower students by validating their identities, fostering mutual respect, and promoting a deeper understanding of Canada's diverse past, present, and future. The integration of diverse perspectives and

knowledges should not be seen as an add-on, but rather as an essential part of the curriculum, embedded in every subject area.

Since this research was conducted in 2019, several provinces have made strides in enhancing their inclusivity, anti-racism policies, and Treaty/Indigenous education practices. In Nova Scotia, for instance, there has been an effort to improve Treaty Education and inclusivity in schools; In 2023, the province introduced four new documents to assist teachers in integrating Treaty Education into their classrooms (Treaty Education Resources, 2023). Additionally, professional learning opportunities, guided by Mi'kmaw elders, continue to be developed (*Areas of Focus: Public Education*, n.d.). Similarly, the government of British Columbia launched its K-12 Anti-Racism Action Plan on January 23, 2023, with the goal of creating resources and raising awareness to improve the educational experiences of racialized students, staff, and families (*BC Gov News: K-12 Anti-Racism Action Plan Launched on Monday, Jan. 23, 2023*., 2023). In contrast, Alberta has introduced an "Education for Reconciliation" plan (*Education for Reconciliation*, n.d.); however, Alberta First Nations Elders have identified a growing knowledge gap between elders and young people (Pedersen & Trembath, 2025). There is an ongoing need to better incorporate Indigenous Knowledge into the provincial K-12 curriculum, a gap that has not yet been effectively addressed (Pedersen & Trembath, 2025). These developments indicate that the work towards inclusivity and reconciliation in education is still a critical and evolving process.

This study has several limitations that highlight areas for future research. Firstly, it lacks a thorough examination of the current state of Treaty Education, Citizenship 9, and Mi'kmaw Studies in schools, which would provide a clearer picture of how these curricula have evolved. A comparative analysis of its initial implementation versus its use in schools today would enhance understanding of progress and challenges that persist. Secondly, the small population size of the original research limits its generalizability. Future research should incorporate a larger, more diverse sample, including student perspectives. This could be achieved through interviews or focus groups and participant observation in classrooms that engage with the Treaty Education curricula. Engaging students directly would ensure their voices are heard in discussions about curriculum development, ultimately leading to more relevant educational practices that reflect the needs of all learners. Thus, ongoing research is vital to uncover new ways of integrating diverse perspectives, ensuring curricula remain relevant and inclusive. Collaboration between educators, policymakers, and communities can help identify innovative strategies and overcome challenges in implementation. By prioritizing these efforts, we can create a more dynamic educational environment where all students feel represented, respected, and empowered to contribute to a more inclusive society.

Acknowledgement

The author expresses their sincerest gratitude to the research participants for their valuable contribution of knowledge and personal experiences, which greatly enriched this study.

REFERENCES

Areas of Focus: Public Education. (n.d.). Treaty Education Nova Scotia. https://novascotia.ca/treaty-education/public_education.html

Battiste, M. (2013). *Decolonizing Education: Nourishing the Learning Spirit*. Purich Publishing Limited.

Battiste, M. (2016). Resilience and Resolution: Mi'kmaw Education and the Treaty Implementation. In M. Battiste (Ed.), *Living Treaties: Narrating Mi'kmaw Treaty Relations* (pp. 259–278). Cape Breton University Press.

Battiste, M., & Henderson, J. (Sa'ke'j) Y. (2009). Naturalizing Indigenous Knowledge in Eurocentric Education. *Canadian Journal of Native Education*, 32(1), 5–18.

Battiste, M., & Henderson, S. (2021). Indigenous and Trans-Systemic Knowledge Systems (ᐃᐣdᐃgᐁᓅᐢ ᐠᓄᐤᐪᐁdgᐁ ᐊᐣd ᐟᗒᐊᐣᐢᐢᐩᐢᑌᒥᐨ ᐠᓄᐤᐪᐁdgᐁ ᐢᐩᐢᑌᐨᐢ). *Engaged Scholar Journal: Community-Engaged Research, Teaching and Learning, 7*(1), i–xix. https://doi.org/10.15402/esj.v7i1.70768

BC Gov News: K-12 Anti-Racism Action Plan launched on Monday, Jan. 23, 2023. (2023, January 23). British Colombia. https://news.gov.bc.ca/releases/2023ECC0003-000066

Bore, A., & Wright, N. (2009). The wicked and complex in education: Developing a transdisciplinary perspective for policy formulation, implementation and professional practice. *Journal of Education for Teaching, 35*(3), 241–256. https://doi.org/10.1080/02607470903091286

Charmaz, K. (2004). Chapter 23: Grounded Theory. In S. N. Hesse-Biber & P. Leavy, *Approaches to Qualitative Research: A Reader on Theory and Practice* (pp. 496–521). Oxford University Press.

Citizenship 9 Guide. (2018). Department of Education and Early Childhood Development.

Corbett, M., & Tinkham, J. (2015). Small Schools in a Big World: Thinking About a Wicked Problem. *Alberta Journal of Educational Research*, 691-707 Pages. https://doi.org/10.11575/AJER.V60I4.55981

Education For Reconciliation. (n.d.). Government of Alberta. Retrieved February 27, 2025, from https://www.alberta.ca/education-for-reconciliation

Esterberg, K. G. (2002). *Qualitative Methods in Social Research*. McGraw-Hill.

Jordan, M. E., Kleinsasser, R. C., & Roe, M. F. (2014). Wicked problems: Inescapable wickedity. *Journal of Education for Teaching, 40*(4), 415–430. https://doi.org/10.1080/02607476.2014.929381

Kanu, Y. (2005a). Decolonizing Indigenous Education: Beyond Culturalism: Toward Post-cultural Strategies. *Comparative and International Education, 34*(2). https://doi.org/10.5206/cie-eci.v34i2.9060

Kanu, Y. (2005b). Teachers' Perceptions of the Integration of Aboriginal Culture Into the High School Curriculum. *Alberta Journal of Educational Research, 51*(1), Article 1. https://doi.org/10.11575/ajer.v51i1.55100

Krause, K.-L. (2012). Addressing the wicked problem of quality in higher education: Theoretical approaches and implications. *Higher Education Research & Development, 31*(3), 285–297. https://doi.org/10.1080/07294360.2011.634381

McGregor, D. (2017). One Classroom, Two Teachers? Historical Thinking and Indigenous Education in Canada. *Critical Education, 8*(14), 1–19.

Mi'kmaw Studies 11 Curriculum Guide. (2016). Department of Education and Early Childhood Development.

Milne, E. (2017). Implementing Indigenous Education Policy Directives in Ontario Public Schools: Experiences, Challenges and Successful Practices. *International Indigenous Policy Journal, 8*(3). https://doi.org/10.18584/iipj.2017.8.3.2

Neuendorf, K. (2002). *The Content Analysis Guidebook*. SAGE Publications.

Pulchny, A. (2020). *Building and Maintaining Authentic Learning Experiences: Educators' Experiences with Mi'Kmaw and Treaty Education in Nova Scotia's Public High School Social Studies Classrooms* [Master's thesis]. Acadia University.

Pedersen, K., & Trembath, T. (2025, February 20). Alberta First Nations elders say they weren't properly consulted on new education curriculum. *CBC News*. https://www.cbc.ca/news/canada/calgary/alberta-first-nations-elders-say-they-weren-t-properly-consulted-on-new-education-curriculum-1.7462176

Rittel, H. W. J., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences, 4*(2), 155–169. https://doi.org/10.1007/bf01405730

Roberts, N. (2000). Wicked problems and network approaches to resolution. *International Public Management Review, 1*(1), 1–19.

Salkind, N. J. (Ed.). (2010). *Encyclopedia of Research Design*. SAGE Publications.

Treaty Education Framework for Curriculum Development. (2017). Department of Education and Early Childhood Development.

Treaty Education Resources. (2023, March 30). Mi'kmaw Kina'matnewey. https://www.kinu.ca/stories/treaty-education-resources

Tuhiwai Smith, L. (2021). *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books. https://doi.org/10.5040/9781350225282

Zhao, Y., Wehmeyer, M., Basham, J., & Hansen, D. (2019). Tackling the Wicked Problem of Measuring What Matters: Framing the Questions. *ECNU Review of Education, 2*(3), 262–278. https://doi.org/10.1177/2096531119878965

ABOUT THE AUTHOR

Alexandra Pulchny received her Ph.D. in Sociology from McMaster University in Hamilton, Ontario. Her research focuses on the factors associated with students' support systems, sense of belonging, and transitions to post-secondary education (PSE), with a particular focus on addressing and removing barriers in access to PSE for underrepresented youth in Canada.

The author reports there are no competing interests to declare. Correspondence concerning this article should be addressed to Alexandra Pulchny, McMaster University, 1280 Main Street, Hamilton ON, Canada, L8S 4L8. Email: pulchnya@mcmaster.ca