

# *Plurality, Equity and Meaning Making with Indigenous Knowledges*

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## **Abstract**

This paper delves into Indigenous Knowledges, how they differ from Western scientific concepts, and their importance in education. It notes how Indigenous worldview and place-based knowledges have long been dismissed, oppressed or silenced by a hegemonic culture intending to destroy knowledge, beliefs, traditions, and language that threaten colonial assumptions. As an ultimate form of holistic education, traditional Indigenous learning methodologies, customs, and perspectives have the potential to transform systems such as school reform initiatives, curricula, budgetary goals, and incentive/disincentive structures. The essay concludes by suggesting a course of action that involves equity impact assessments that focuses on the voices, views, and principles of Indigenous communities.

**Keywords:** *Indigenous Knowledges, Indigenous Methodologies, Education Reform, Pedagogical Approaches*

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Indigenous Knowledges have long been ignored and their potential for informative decision-making continues to be undermined. In Western knowledge systems, there is a culture of epistemic violence, which seeks to maintain the status quo and resist any change in power relations by destroying systems of knowledge, beliefs, traditions, and language that challenge colonial paradigms (Dotson 2011; Spivak 1985). Indigenous methodologies, practices, and approaches can disrupt sociohistorical power imbalances and create equitable policymaking processes and outcomes. With the incorporation of Indigenous Knowledges, government policies, funding priorities, and incentives and disincentives associated with education reform have the opportunity to transform our society. Researchers and policymakers must actively and deliberately examine dominant cultural values and assumptions and demonstrate the importance of research beyond disciplines and knowledge established by Western scientific paradigms to include Indigenous approaches if education is ever to impact the imbalances our world is facing.

Indigenous<sup>1</sup> Knowledges reflects knowledge that is primarily associated with Indigenous Peoples who have managed to hold on to their place-based wisdom and the in-common worldview that connects them. A common definition for Indigenous Peoples is a group of people who have a “sense of rootedness in a place” (Lee 2003, 84). However, the term Indigenous and who the Indigenous are, is heavily debated in literature and practice (Dean and Levi 2003; Niezen 2003) because there are many communities around the world who have characteristics of Indigenous Peoples or Communities, but are not labeled as Indigenous or recognized for Indigenous rights (Dei, Hall, and Rosenberg 2000; Semali and Kincheloe 1999). There are numerous communities around the world who have long-term connections to a particular area and are not identified as “Indigenous.”

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<sup>1</sup> Indigenous has been referred to as a historical object of colonial encounter and observations, therefore adjectives including tribal, native, aboriginal, Indian (Carnerio da Cunha and Almeida 2000) and primitive (Niezen 2003) are also associated with the term. Indigenous became the preferred term after 1945, the post-colonial period (Niezen 2003).

Most scholars and practitioners agree that "Indigenous" Peoples have lived in a geographic area for generations and created their community based on local factors and their knowledge is culturally bound with set characteristics (Dean and Levi 2003; Dei, Hall, and Rosenberg 2000; Niezen 2003). Governments ultimately determine who is Indigenous and who deserves Indigenous rights (Srikantaiah and Rueger 2008).<sup>2</sup> It is important to recognize that Indigenous Knowledges are diverse and unique from one another as they are based on the particular place from which they were derived. In pan-Indigenous discussions about the broader concept of worldview, it is vital to acknowledge this uniqueness of Indigenous Knowledges. Ogawa (1995) and Snively and Corsiglia (2001) note that the plurality of Indigenous Knowledges, and their association with multiple and diverse cultures, helps us understand that there are multiple approaches and perspectives to truth or reality. Indigenous Knowledges function and rely upon their environment and reflect multiple perceptions of reality (Ogawa 1995; Nader 1996; Snively and Corsiglia, 2001). Indigenous Knowledges are also tightly integrated with the livelihoods of local people and are not just "abstract ideas or philosophies" or "abstract representations of the world" (Agrawal 1995, 422) and are "the centering of community voices and values" (Khalifa et al. 2019, 3).

The following characteristics can be used to identify and define place-based Indigenous Knowledges:

- (a) It can be considered as knowledge that is held by disadvantaged communities (Semali and Kincheloe 1999 and Dei, Hall, and Rosenberg 2000);
- b) It is knowledge that may be undocumented or orally passed from generation to generation by elders in a community (Ogawa 1995; Semali and Kincheloe 1999; Dei, Hall, and Rosenberg 2000);
- (c) It is generally not knowledge learned in formal education systems or is not circulated in university settings (Sillitoe 2002);
- (d) It generally reflects its originality despite historical wars, imperialism, colonization, and modernization

events (Semali and Kincheloe 1999 and Dei, Hall, and Rosenberg 2000);

- (e) It includes cultural perspectives, beliefs, mythological stories, and lived experiences in social and natural environments (Snively and Corsiglia 2001; Kawakami 1998),<sup>3</sup>
- (f) It is a reflection of interconnectedness of mind, body, spirit, community, and place that remains under attack by hegemonic forces.

### Indigenous Knowledges and Western Scientific Paradigms

Western science, or the dominant thinking in science, does not generally acknowledge the interdependence that Indigenous Knowledges have with their environment, nor how the wisdom practice is nurtured via language, rituals, and ceremonies. For example, during periods of colonization, French, English, and Spanish colonists introduced 'reductionist' medicine as the solution to health problems in their colonies (Shroff 2000).<sup>4</sup> Reductionist medicine undermined social aspects of Indigenous knowledge including Indigenous religions, oral traditions, and traditional healers which were originally used for healthcare. The reductionist concept, influenced by Cartesian philosophy, implies that the human body is simply a mechanical system, and each compartment operates and functions separately (Ogawa 1995). Reductionist medicine also includes the implementation of Western hospitals, promoting the dissemination of allopathic medicines and some homeopathic medicines, and the design of healthcare systems based solely on Western science.

Such perceived supremacy of Indigenous Knowledges causes them to be marginalized in research and funding because their philosophies do not align with Western scientific methods (Ogawa 1995; Jegede 1999; Snively and Corsiglia 2001; Briggs and Sharp 2004). Rationales often relate to references that laid the west's "miracle drugs," like the polio vaccination, which has helped eliminate polio in many parts of the world and was relied on as the benchmark to validate other forms of knowledge and their

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<sup>2</sup> Governments in Latin America recognize various Indigenous communities. Lee (2003) says that Latin Americans have had several political and scientific discourses concerning who the Indigenous are. Maybury-Lewis (2003) adds that Mexico, Ecuador, and Bolivia have characterized themselves as "pluriethnic" countries and Mexico, for example, recognizes indigeneity and identifies 56 Indigenous communities.

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<sup>3</sup>Certain Indigenous Knowledges, although also having been oppressed by colonization or modernization, are dominant and may undermine minoritized members of a society. The caste system in India is an example.

<sup>4</sup> Civilizations have, "thrived for millennia completely outside the realm of Western science, agriculture, and belief systems, [and] offer truly alternative views of ecology and agriculture that stem from long-term use and conservation of natural resources" (Norton, Pawluk, and Sandor 1998, 333).

approaches to treatment (Briggs and Sharp 2004).<sup>5</sup> Of course, the medicinal knowledge of Indigenous Peoples remains largely ignored while simultaneously being commercially taken without the accompanying spiritual knowledge used as curatives for most of human history.

With the philosophical understanding that there are multiple perspectives to truth, it is important to acknowledge that Indigenous Knowledges can complement Western science. For example, *essiac*, a plant found on tree bark and used by Ojibwe people to treat diseases such as cancer, "contains inulin, an enzyme that breaks down the mucous coating on cancer cells and allows the body's defensive system to enter them" (Rosenberg 2000, 147). Understanding the plurality of knowledge in our world can enhance the global scientific dialogue, not by Western competition, but by the non-dualistic Indigenous Worldview that seeks complementarity in all apparent opposites. Uncovering the synergies across knowledges is fundamental to help bridge gaps (Jegade 1999). Working peacefully together, we can be allies who use the totality of our knowledges to benefit society.

Although some believe that such partnerships between Western education and Indigenous education cannot happen, others believe that Western education and Indigenous approaches to curriculum and instruction can "go hand-in-hand." Moreover, some believe education is the only way for "transmitting, amassing, enhancing, and altering" Indigenous Knowledges (Easton 2004, 1). Unfortunately, Western education systems impose a "specialized set of educational experiences that are discontinuous with those encountered in daily life and [that] supports ways of learning and thinking that are frequently antithetical to those fostered by practical daily experiences" (Scribner and Cole 1973, 553).

While education systems are constantly improving, the knowledge produced is biased toward Western ideas, views, and values. The field of education consists of a combination of different social and cultural principles that change overtime. However, these principles that prevail are based on neoliberal ideals, which are manifestations of Western thinking. With the spread of compulsory education, the expansion of education scale, and the strengthening of the

role of the state in education, education has increasingly entailed the philosophies of Western knowledge. The emphasis is on efficiency and monetized values over diversity, equity, well-being, and care.

British colonization has also influenced global education standards, including the United States, and colonialism in education is still prominent today (Abdi 2011). Neocolonialism and neoliberalism continue to shape educational structures and processes. Anglophone regimes and much of western Europe have accepted neocolonialism to run global economies. The political, social, and economic philosophies of neocolonialism and neoliberalism, along with other Western theories such as human capital, state theory, world culture theory, and modernity, promote unequal knowledge distribution (Takayama, Sriprakash, and Connell 2017). A primary means by which Western knowledge was asserted as universal was the denigration and denial of non-Western ways of knowing (Santos 2007). As described in Santos' (2002) theory of the Sociology of Absences, there is a deliberate and systematic erasure of Indigenous Knowledges to deem it as an inconceivable alternative to what is presumed to exist. The Washington Consensus, for example, impacted the democratic governance of developing countries, intensified inequality, and hurt the marginalized (Whyte 2019) by initiating and enforcing development through Western paradigms. For example, within the Washington Consensus, many Western organizations' international rankings and evaluation systems use Western education criteria.

Indigenous Knowledges have important pedagogical approaches, or learning models or patterns, that are related to other local environments and cultures of communities. Unfortunately, many school curricula are designed largely outside the context of Indigenous groups, with little regard to their cultures. Education policies and practices can promote Indigenous Knowledges, cultures, values, and identity through the instruction of Indigenous languages. However, utilizing Indigenous Knowledge, should go beyond just vocabulary or grammatical rules and involve the transfer of philosophies, histories, and customs as well. Ahenakew (2016) warns against "grafting", whereby other knowledge traditions are incorporated into curricula only after being transplanted onto Western knowledge systems or manipulated to meet mainstream institutional goals (323). Grafting for inclusion does not happen as a mutually beneficial exercise, but rather as a form of assimilation (Ahenakew 2016). Using this approach, Indigenous perspectives and peoples are recognized and included only if they are compatible with Western paradigms and do not threaten the epistemological hegemony of Western

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<sup>5</sup> Vaccines are also a reductionist approach to treatment and a humanitarian response to emergency healthcare situations. Vaccines are not holistic or a long-term health approach, which reflect philosophies of Indigenous Knowledges, and in addition long-term effects of vaccines on immunity and wellbeing is not well researched.

institutions. Rather than transplanting and manipulating Indigenous Knowledges, the emphasis should instead be on an 'ecology of knowledges' that recognizes the plurality of heterogeneous knowledges (one of them being modern science) and on the sustained and dynamic interconnections between them without compromising their autonomy (Santos 2007, 11).

### Equity Audits

We close with a suggestion that would step forward in bringing the deep holistic perspectives of Indigenous Knowledges forward into mainstream Western education with "equity audits."

In discussing Indigenous, Decolonizing School Leadership (IDSL) frameworks, Khalifa, Khalil, Marsh, and Halloran (2018) attempt to "capture some of the forms and underlying values of leadership praxis enacted by Indigenous and minoritized school leaders from around the world" (3). In doing so, one of the strands of IDSL they highlight is "the centering of community voices and values" (3).

Khalifa (2018), in another study, observed educators who often wondered why "achievement gaps" not only exist but persist among students of color. He noted the efficacy of equity audits in being able to offer solutions to some of their questions, yet also noted their lack of use in schools. Some districts have invested literally millions of dollars in addressing problems of inequity, going from one reform or consultant to the next, often based on what they have heard other districts were doing. Unfortunately, these reforms have often not worked as well as educators expected; not surprisingly, this has led to reform fatigue. Most schools are evaluated using test scores, class failure rates, and high school graduation rates. Yet few districts have conducted equity audits as a way to more precisely implement reforms (22).

Equity audits are tools that center community voices and values. An example of equity audits are *Racial Equity Impact Assessments* (REIAs), which are systematic examinations of how different racial and ethnic groups are being affected by a particular policy or program and/or how different racial and ethnic groups will likely be affected by a proposed policy action or decision. REIAs are used to minimize unanticipated adverse consequences in a variety of contexts, including an analysis of proposed policies, institutional practices, programs, plans and budgetary decisions; and can be a vital tool for preventing institutional racism and for identifying new options to remedy long-standing racial inequities (Race Forward, 2009b; Voices for Racial Justice, 2015). Racial Equity Impact Assessments (REIAs) are also useful tools for assessing the actual or anticipated effects of education policies and

budgets to maximize equity and inclusion and minimize harmful and unanticipated impacts in schools (Race Forward, 2009a). As such, they ought to be utilized in Western scientific and educational institutions as a framework to incorporate Indigenous Knowledges in curriculum, pedagogy, and policy.

Using such equity audits and understanding Indigenous Knowledges in the context of formal and non-formal school curricular practices and instructional methods is a step forward in rejecting Eurocentric universalism. Teaching and learning about Indigenous Knowledges alongside Western Knowledge allows students of all ages to understand the diversity of knowledge in our world and to develop bridges to link people, particularly those who are minoritized. Peaceful interactions and mutual learning are likely if educational systems truly launch a more in-depth line of thought and discussion about Indigenous Knowledges.

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