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Philosophy for JCIHE

This is the official journal of the Comparative and International Education Society's (CIES) Higher Education Special Interest Group (HESIG), which was created in 2008. HESIG serves as a networking hub for promoting scholarship opportunities, critical dialogue, and linking professionals and academics to the international aspects of higher education. Accordingly, HESIG will serve as a professional forum supporting development, analysis, and dissemination of theory-, policy-, and practice-related issues that influence higher education.

Submission and Review

1) EMPIRICAL ARTICLES

Authors are encouraged to contextualize their argument, when possible, by citing from existing debates and discussions previously published in JCIHE and by sharing how the results of your manuscript contribute to previous published articles on related issues. These links build a sense of continuity and foster scholarly dialogue within the journal.

Empirical Articles: empirical research should demonstrate high rigor and quality. Original research collects and analyzes data in systematic ways to present important new research that adds to and advances the debates within the field of comparative and international higher education. Articles clearly and substantively contribute to current thought by expanding, correcting, broadening, posing questions in a new light, or strengthening current conceptual and/or methodological discussions in the field of comparative and international higher education. We especially welcome new topics and issues that have been under-emphasized in the field. Empirical Articles are 5,500 - 7,500 words excluding references and tables.

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Authors are encouraged to contextualize their argument, when possible, by citing from existing debates and discussions previously published in JCIHE and by sharing how the results of your manuscript contribute to previous published articles on related issues. These links build a sense of continuity and foster scholarly dialogue within the journal.

Review/Essays: scholarly research-based review/essays demonstrate rigor and quality. Original research that a) describes new developments in the state of knowledge, b) examines area studies and regional developments of social, cultural, political and economic contexts in specific regions worldwide, c) analyzes existing data sets applying new theoretical or methodological foci, d) synthesizes divergent bodies of literature, e) places the topic at hand into a platform for future dialogue or within broader

debates in the field, f) explores research-to-practice, g) examines practical application in education systems worldwide, or h) provides future directions that are of broad significance to the field. Submissions must be situated within relevant literature and can be theoretical or methodological in focus. Review/Essays are 3,500 to 4,500 words excluding references and tables.

3) SPECIAL ISSUES. JCIHE offers two special issues annually that address current issues of comparative and international higher education. Calls for submissions are included in the home-page.

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Authors are encouraged to contextualize their argument, when possible, by citing from existing debates and discussions previously published in JCIHE and by sharing how the results of your manuscript contribute to previous published articles on related issues. These links build a sense of continuity and foster scholarly dialogue within the journal.

Emerging Scholars Research Summaries share thesis or dissertation work-in-progress or original empirical research. The intent of this special issue is to share cutting edge research that is of broad significance to the field of comparative and international higher education. Articles must include a literature review, theory focus, and strong methods sections. Articles are 1,000 - 1,500 words excluding references and tables.

NOTE: Submissions must include a Letter of Support from the student's Supervisor/chair indicating their approval for the publication.

The style and format of the *Journal of Comparative & International Higher Education* follows the APA style (7th Edition). Footnotes/Endnotes are not allowed. USA spelling (e.g., center, color, organize) and punctuation are preferred (single quotations within double if needed), and requires a short paragraph of bibliographical details for all contributors. Please see Instructions to Authors for additional formatting information.

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Introduction

Rosalind Latiner Raby[a*]

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Editor-In-Chief

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Dear Readers -

I am pleased to share the Vol. 13, Issue 3, 2021 of the *Journal of Comparative and International Higher Education* (JCIHE). Issue 3 includes three Essays along with a Special Issue on the role of Indigenous knowledge in advancing sustainable development in higher education.

Interest in comparative and international higher education continues to expand and to respond, JCIHE has revised the type and guidelines for submissions. JCIHE now publishes a) Empirical Articles; b) Scholarly Research-Based Review/Essays; c) Emerging Scholars Research Summaries; and d) Book Reviews. Please visit for guidelines: https://www.ojed.org/index.php/jcihe/about

The JCIHE 2021 Issue 3 - Summer Special Issue, 2021 is edited by Ane Turner Johnson

and Marcellus Mbah. The issue focuses on the empowerment of Indigenous knowledges as a way to honor those knowledges as well as to use them to advance sustainable development goals (SDGs). In so doing, integration of Indigenous Knowledge in curricula and pedagogy are poised to promote higher education environmental, social, and academic change. Moreover, collaborations between higher educational institutions and their communities can address critical problems faced by societies across the globe and can provide sustainable solutions. The articles in the issue raise the importance of how educational sustainability can be a tool to build balance between Eurocentric and majority world context of higher education with equity that empowers the relevance of localized and Indigenous populations and their cultural knowledges. JCIHE is proud to share this Special Issue that speaks to one of the most important issues of our times.

SUMMER 2021 SPECIAL EDITION

Contributions to the Special Issue include:

1. Meseret Hailu (Arizona State University, United States) and Amanda Tachine (Arizona State University, United States).

   Indigenous and Black Relationality: Theoretical Considerations for Higher Education Sustainability

   The article explores possibilities for university-led sustainable development by putting Indigenous and Black knowledge systems in conversation with one another.

2. Ane Turner Johnson (Rowman University, United States) and Marcellus Mbah (Rowan University, United States)

   (Un)Subjugating Indigenous Knowledge for Sustainable Development: Considerations for Community-Based Research in African Higher Education

   This article examines how universities in Gambia and Zambia juggle competing

priorities that influence their role in sustainable development, particularly when universities prize productivity and funding over solving social problems.

3. Kari A. B. Chew (University of Oklahoma, United States, Chickasaw Nation) and Sheilah E. Nicholas (University of Arizona, United States, Hopi Community).

   Cultivating Enduring and Reciprocal Relationships in Academia: An Indigenous Mentor-Mentee Model

   This article uses author self-reflection on their experiences with Indigenous mentorship in a doctoral program.

4. Kelsey Leonard (University of Waterloo, Canada, Shinnecock Nation), Claudia Milena Diaz Rios, (University of Toronto, Canada) and Bryan Brayboy (Arizona State University, United States).

   Turtle Island (North America) Indigenous Higher Education Institutions and Environmental Sustainability Education

   This article examines the environmental and sustainability curricula in Indigenous Knowledge Systems found in Indigenous Higher Education Institutions (IHEIs) in what is currently known as Canada and the United States.

5. Jing Lin (University of Maryland, United States), Angela Stoltz (University of Maryland, United States), Matthew Aruch (University of Maryland, United States) and Annie Rappeport (University of Maryland, United States).

   Decolonization and Transformation of Higher Education for Sustainability: Integrating Indigenous Knowledge into Policy, Teaching, Research, and Practice

   This article uses a decolonialized focus to explore the lack of integration of sustainability, environmental awareness, and civic responsibility found in higher

educational institutions.

6. Sonia M. Fonua (University of Auckland, New Zealand)

   Enabling Sustainable Development by Embedding Tongan Knowledge into University Science Curricula

   This article explores the complex and intertwined processes of coloniality and globalization and subsequent spreading of a dominant set of western knowledge, values, and practices discrediting local Indigenous knowledges and wisdom.

ESSAYS/REVIEWS

JCIHE Issue 3 includes three essays that explore topics of student learning, leadership training accessibility, and neo-liberal context for higher education.

1. Tasneem Amatullah (Emirates College for Advanced Education (ECAE), United Arab Emirates), Brittany Aronson (Miami University, United States), Gul Rind (Miami University, United States)

   *International Graduate Students' Positionality in a U.S. Critical Multicultural Education Cours*e

   The essay describes the experience of four international students after taking a class in critical multicultural education at a predominantly white institution in the Midwest, U.S. Utilizing narrative inquiry and narrative coding to analyze students' positionality papers, the researchers found two overarching themes: (1) Prior Experiences (national identity, family background, exposure, and education and socio-cultural experiences); (2) Perspectives on Multicultural Identities (race and ethnicity, religion, gender and sexuality, class and privilege, and culture shock.

2. Nucelle L. Chance (Fort Hays State University, United States).

Exploring the Disparity of Minority Women in Senior Leadership Positions in Higher Education in the United States and Peru

The essay compares and contrasts accessibility to higher education senior leadership for women in the United States and Peru. The essay highlights the disparity and challenges of women in higher education senior leadership, with a focus on indigenous and Afro-Peruvian women in Peru and women of color in the United States. In each context, the character traits, career path, motivations, definitions of success, and challenges of women who serve in executive higher education leadership positions are outlines. This essay contributes to the field of comparative and international higher education, both domestically and abroad, while addressing demographic challenges such as sex and race for women in and seeking higher education administrative leadership career goals.

3. Douglas L. Robertson (Florida International University, United States) and Nazgul Bayetova (Florida International University, United States).

Peculiarities and Paradoxes of Neoliberal Higher Education in Kazakhstan

The essay examines expressions of neoliberalism in Kazakhstan's emerging higher education system. The essay shares that the general political-economic paradigm of neoliberalism differs in its specific implementation depending on the particular countries and cultures in which it is manifesting. Grounded theory as a methodological tool is used to analyze the official speeches of former president Nursultan Nazarbayev from 1991-2019. In Kazakhstan, neoliberalism's expression in the former Soviet Republic's emerging higher education system presents five paradoxes: (a) nationalistic globalism, (b) regulated non-regulation, (c) giving as a means to getting, (d) communal

individualism, and (e) developmental demise. This article explores each of these five paradoxes.

JCIHE is dependent on the volunteer efforts of many scholars in the field of comparative and international higher education. I want to give special thanks to the JCIHE Copy-Editors for this issue: Joanna Abdallah, Ricardo Covele, Morgan Keller, Rachel McGee, Gregory Malveaux, Michael Lanford, Nian Ruan, and Samatha Thompson.

JCIHE is an open access, independent, peer-reviewed international journal publishing original contributions to the field of comparative and international higher education. The JCIHE is the official journal of the Comparative and International Education Society (CIES) Higher Education Special Interest Group (HESIG). JCIHE has as its core principles: a) comparative research; b) engagement with theory; and c) diverse voices in terms of authorship. JCIHE supports a professional forum for the development, analysis, and dissemination of theory-, policy-, and practice-related issues that influence higher education.

Finally, I want to thank several individuals who were instrumental in the publication of this issue, Associate Editor, Hayes Tang, Copy-Editor Director, Nian Ruan, and Production Editor, Jie Liu. It is their dedication that helps keep the standards and integrity for the journal.

Editor-in-Chief,

Rosalind Latiner Raby

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Special Issue Introduction: Exploring the Role of Indigenous Knowledge in Postsecondary Policies and Practices Toward Sustainable Development

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ABSTRACT

This article serves as the introduction to the Special Issue on "Exploring the Role of Indigenous Knowledge in Postsecondary Policies and Practices Toward Sustainable Development." We begin by outlining sustainable development and the role of higher education in addressing sustainable development goals. We critique the epistemological assumptions that underlie sustainable development and that have led to its capture by Western development and science. We consider the importance of incorporating an Indigenous knowledge and practices into higher education in order to solve pressing social and environmental challenges. Finally, we discuss the reasoning for

this issue and set forth a series of arguments for choosing an open access journal as an appropriate modality for this inquiry.

Keywords: Indigenous knowledge, higher education, open access, sustainable development

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INTRODUCTION

Sustainable development has been defined, quite broadly, as meeting the needs of the present without compromising future generations' ability to meet their needs (WCED, 1987). In 2015, this definition was expanded into the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals and 169 targets that serve as a framework for the economic, social, and environmental dimensions of development, which seeks to reduce poverty and social inequality. Education for Sustainable Development (ESD), reinforced in SDG 4, has catalyzed the incorporation of the Sustainable Development Goals into education policy and practice, worldwide, placing education at the forefront of the social transformation needed to accomplish sustainable development (Ferrer-Estévez & Chalmeta, 2021). "The task of moving the course of the global ocean liner away from social injustice and environmental destruction is such that it requires the action of all in society, its institutions and individuals" (McCowan, 2019, p. 213). Postsecondary education is critical to the success of the SDGs and has a moral responsibility to "embody support for the SDGs as part of their social missions and core functions" (Leal Filho et al., 2021, p. 2). As a result, higher education institutions have increasingly taken up the call to incorporate notions of sustainability into the curriculum, student experiences, research engagement, community relationships, industry partnerships, and campus operations (Leal Filho & Brandli, 2016).

Organizations, networks, and initiatives have sprung up worldwide to assist universities in their endeavors toward engaging significant social, economic, and environmental challenges, like the Global Universities Partnership on Environment for Sustainability (GUPES), the Higher Education Sustainability Initiative (HESI), the Sustainable Development Solutions Network (SDSN), the Alliance of Ibero-American Networks of Universities for Sustainability and the Environment (ARIUSA), University Educators for Sustainable Development (UE4SD), Copernicus Alliance: European Network of Higher Education for Sustainable Development, and the Association for the Advancement of Sustainability in Higher Education (AASHE), among many others (Ruiz-Mallén & Heras, 2020; Torabian, 2019). Since 2009, the International Sustainable Campus Initiative has recognized and awarded university efforts each year in the areas of whole systems approach, partnerships for progress, and cultural change for sustainability. The United Nations has recognized SDG hubs, highlighting the innovative work many institutions, in both the Global South and North, are doing toward specific goals. In 2018, the Times Higher Education created a global ranking of over 700 universities and their efforts toward advancing SDGs via research, teaching, outreach, and stewardship. Considering the not inconsiderable support, resources, and prestige associated with these various mechanisms for institutional change, there is reason for optimism that postsecondary education will fulfill its assumed role.

Yet, the effective integration of sustainable development into the mission and function of universities, beyond the rhetorical, is challenged by many factors: understanding of SDGs among students, faculty, and staff, support from management, bureaucratic rigidity, competition for resources and financial constraints, and disciplinary cultures (Leal Filho et al., 2019; Ruiz-Mallén & Heras, 2020; Ulmer & Wydra, 2019; among others). These disciplinary cultures, ones that promote knowledge centralization into discrete programs and units, point to institutionalized

epistemological problems that trouble the incorporation of sustainable development principles (Mbah et al., 2021). Furthermore, "the SDGs are not a problem-free, consensual package that universities can simply set their sights on and gather the political will and resources to achieve;" sustainable development is founded in certain epistemic assumptions that privilege Western orthodoxy (Chankseliani & McCowan, 2021, p. 2). As Weiss (2017) has noted, sustainable development is a floating signifier in that it lacks a fixed or definitive meaning; consequently, contestations over the term have led to its capture by essentialist Western development and science at the expense of other forms of knowledge (Chankseliani et al., 2021; Kumalo, 2017; Rajão et al., 2014).

Modern postsecondary education is replete with what de Sousa Santos (2007) called "abyssal thinking." It relies on so-called "expert knowledge" to solve wicked social problems, "radically excluding" knowledge on the other side of the abyss, the *other(ed)* ways of knowing, including Indigenous knowledge and associated practices that contain the "experiences, skills, and techniques, remembered and accumulated" of communities (Turner et al., 2008, p. 46). Indigenous knowledge is best understood as reflecting traditional, empirical, and revealed understandings of the world associated with "economic, cultural, political, spiritual, ecological and material forces and conditions" (Dei, 2000, p. 115). It is inseparable from "largely place-based relations and obligations," from the land and its people, and the practices that promote both social and environmental well-being (Latiluppe & Klenk, 2020, p. 7). Shizha and Emeagwali (2016) have stressed that Indigenous knowledge is in fact a scientific understanding of the world. "Rather than exercising dominion and power over nature as Eurocentric scientists and engineers do, Indigenous peoples live more in harmony with nature by systematically collecting data over many generations as flux naturally occurs in their land…" (Aikenhead & Ogawa, 2007, p. 561). If we are to see

science as the source of solutions for sustainability problems, then we must also look to Indigenous knowledge as a form of scientific know-how.

PURPOSE OF THE SPECIAL ISSUE

In line with de Sousa Santos, we argue in this special issue that these forms of knowledges exist in co-presence, in a vast ecology, and it is this ecology that we must tap now to address sustainable development. Postsecondary education should play a critical role in the preservation and application Indigenous knowledge. When engaged authentically, Indigenous knowledge can have a decolonizing effect and contribute to the epistemological diversity of the university (Collins & Kalehua Mueller, 2016). However, postsecondary policies and practices often assess knowledge for its "market value," thereby gatekeeping the creation, development, and dissemination of diverse knowledges (Guilherme & Dietz, 2017, p. 19). This requires us to engage with questions of epistemic justice in the academy: "Research has a social context….There is, therefore, a need for researchers to take seriously the relationship between knowledge and cultural power" (Higgs, 2010, p. 2420). There are several practices that higher education institutions codify in order to maintain their role as arbiter of knowledge and promote university cultural power. The high cost of journal subscriptions, research produced in English and centralized in inaccessible formats (i.e., academic journals) (Meaghar, 2021), and the enforced use of theories, formats, methods, and concepts that delegitimize non-Western approaches (Faciolince & Green, 2021), all which prevent equitable knowledge distribution and are antithetical to sustainable development.

We can, as scholars, counterbalance this cultural power. Trisos et al. (2021) push us as scholars to "decolonize access" to knowledge by practicing reciprocity in research communities and contexts, using participatory research practices, and publishing in open access journals. These journals must be "open to the ecology of knowledges and the plurality of epistemologies, with an

inclusive and non-normative universalism" (Piron, 2018, para. 22). While not able to address all of the problems with global knowledge production regimes, open access can play a role in democratizing knowledge that leads to new understandings, exemplars, and best practices, enabling a more substantive contribution to sustainable development on the part of universities, scholars, and communities everywhere.

Authors' Voices

For this special issue, we have chosen to promote a discussion about postsecondary education institutions and their engagement with Indigenous knowledge for sustainable development through an open access journal, the *Journal of Comparative & International Higher Education*, which we believe will enable us to share the outcomes of our work with scholars and communities around the world. In our own piece, we address how African researchers conceptualize Indigenous knowledge, use research practices that engage epistemic authorities and Indigenous language, and the challenges that contemporary higher education poses to African researchers and Indigenous communities. We highlight our participants' experiences in order to uncover the connections, both actual and envisioned, made through research relationships to sustainable development. We asked the authors represented in this special issue what motivated them to communicate their work, in this format, on these topics. Here is what they shared:

Meseret Hailu and Amanda Tachine, both assistant professors of Higher Education at Arizona State University, stated:

> We were driven by our joint commitment to Black and Indigenous communities and theorizing about their (our) ways of knowing. We hope that publishing our work in this journal will allow us to engage more deeply with critical scholars in different country contexts.

In their article, Hailu and Tachine incite us to see the complementarity of Black and Indigenous theorizing, considering their "parallel entanglements." They pose critical questions to scholars seeking to explore and expand upon cultural sustainability.

Kari Chew, an assistant professor of Indigenous Education at the University of Oklahoma, and co-author Sheilah Nicholas, professor of Teaching, Learning, and Sociocultural Studies at the University of Arizona, exhorted:

> The university does not accept and embrace diverse knowledges as *gifts*. Students, particularly BIPOC students, go to university to address and meet community goals and needs. Meanwhile, the university has both a dismissive and an extractive perspective, claiming ownership of knowledge produced. Despite this lack of institutional support, students, faculty, and staff come together to carve out spaces for themselves. Our article was a carved-out space for ourselves to think, write, and reflect together—and, through the issue, be in relationship to others doing this shared work.

Chew and Nicholas, for the special issue, portray a conversation between Indigenous colleagues as they reflect on a mentor-mentee relationship and significant events in the process that emphasized cultural integrity, within the context of a university located on Indigenous lands.

Indigenous water scientist and activist, Kelsey Leonard, an assistant professor of Environment at the University of Waterloo, explained,

> As Indigenous Peoples we are often confronted by the myth that we and our knowledges do not belong in the academy. However, this collection is a living testament to Indigenous innovation and pathways for the recognition of Indigenous knowledges to meet our pressing sustainability challenges and empower future generations.

In her piece, Leonard critically investigates the sustainability content grounded in Indigenous Knowledge Systems present in the curriculums of Indigenous Higher Education Institutions on Turtle Island (the United States and Canada). She suggests that, despite funding challenges, there is evidence of innovation at these institutions that will position Indigenous youth and communities to respond to climate crisis.

Jing Lin, professor of International Education Policy at the University of Maryland, and her co-authors, Angela Stoltz, clinical faculty, and Ph.D. candidates Matthew Aruch and Annie Rappeport offered,

> We are driven to contribute to this special issue because we see that higher education institutions require a fundamental paradigm shift from a capitalist, colonial, industrial, and reductionist mentality toward an Indigenous Knowledge model, one that acknowledges the sacred value of nature, the rights of other non-human beings, the rights of Indigenous People to have a seat at the table for higher learning curriculum and programs, and the power and potential of transformative learning in collaborating with Indigenous communities.

To this, Aruch also added "part of my motivation was (as an ally/ partner) to amplify the voices, knowledge, and actions of Indigenous colleagues in Brazil as they continue to advocate for territorial and political sovereignty." Their collective manuscript represents their perspectives on teaching, partnerships, and activism to decolonize the academy.

Sonia Fonua, a teaching fellow at the University of Auckland, wrote, "I felt it was important to disseminate work from Oceania/the Southern Hemisphere more widely as we engage with Indigenous knowledges in different ways." In her article, Fonua offers an alternative approach to teaching that respects the culture and language of minoritized Tongan students at her university.

She presents the *'Ulungaanga faka-Tonga Fonu* as a cultural sustaining model that embeds Indigenous knowledge into formal teaching spaces.

The articles in this special issue are diverse, exploring Indigenous knowledge in higher education via an array of methodologies, geographies, communities, and theoretical orientations. As a result, we believe that the special issue has the potential to inform the relationship between the participation of higher education institutions in fostering sustainable development, supporting formal engagement with Indigenous knowledge, and bringing to light collaborations between universities and communities to address critical problems faced by societies across the globe. "[T]here is no global social justice without global cognitive justice. This means that the critical task ahead cannot be limited to generating alternatives. Indeed, it requires an alternative thinking" (de Sousa Santos, 2007, p. 63). In the final analysis, for higher education to be transformative, fundamentally changing the conditions that contribute to crisis, our epistemic approaches in the academy must transform to be more inclusive, equitable, and just.

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Empirical Article

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Black and Indigenous Theoretical Considerations for Higher Education Sustainability

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ABSTRACT

In this conceptual paper, the authors make the case for why and how researchers can incorporate Black and Indigenous standpoints in higher education scholarship. We begin by drawing parallels between the racialized contexts of higher education for Black and Indigenous communities in the United States (U.S.). Next, we explore ethics of communality among Black immigrant and refugee populations, as well as Indigenous knowledge systems of relationality. We conclude by posing 10 research questions to be taken up by higher education researchers.

Keywords: Black immigrants and refugees, cultural sustainability, higher education, indigenous knowledge systems, intellectual solidarity

INTRODUCTION

"We sustain what we love" is the guiding statement offered by Django Paris and H. Samy Alim's work of Cultural Sustaining Pedagogies (CSP) (2017, p. 12). In the context of *sustaining*

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what we love, we understand sustainability as not simply an understanding of environmental protection of ecological resources and environments, but also as a practice that ensures the continuity of knowledge systems that require care and safeguarding. This expanded view of sustainability is needed for the vitality of higher education. Among the United Nations'(UN) (2016) sustainable development goals, targets number 4 and 11 call for educational equity and environmental sustainability, respectively. After establishing initial targets, the UN put forth multiple amendments, including Amendment 4.6, which advocates for the "...further strengthening the commitment to equity by specifically mentioning women, ethnic minorities and indigenous peoples" (UN, n.d., para. 1). This amendment suggests that definitions of sustainability are constantly evolving. Meanwhile, Brundiers et al. (2021) conducted a Delphi study of 14 institutions and identified a set of sustainability focused learning objectives and competencies for students: environmental justice, scientific inquiry, and futures-oriented thinking that opens space for us to understand that what we do today will have an influence on futures. As Indigenous and Black scholars, we build on these existing and evolving definitions and are also inspired by Paris and Alim's intentional work on sustaining lifeways that, "seeks to perpetuate and foster – to sustain – linguistics, literate, and cultural pluralism as part of schooling for positive social transformation" (2017, p. 1). In the remainder of this paper, we build a conceptual case that practices of cultural sustainability need to take into account Black and Indigenous standpoints.

Specifically, we explore cultural sustainability through a discussion of Indigenous relationality and Black ethics of communality in U.S. society more broadly, and within the context of U.S. higher education narrowly. We begin this conceptual argument by stating explicitly that Blackness and Indigeneity are not mutually exclusive identities. And while we do not attempt to create an equivalency between the two groups, we recognize that there are parallels to their

racialized (and politicized) identities and the interplays between postsecondary education contexts and the larger society. In our next section, we explain some of these parallels.

Parallel Invisibility in National Data

Black ways of being are highly diverse, encompassing people, cultures, and communities from across the globe. Because national data sets have not historically disaggregated by ethnicity or national background up until the 2020 census for Black populations, it is difficult to determine the exact number of Black migrants (immigrants, asylees, and refugees) in the U.S., obfuscating the unique cultural dimensions of complex and diverse Black communities and instead homogenizing the Black experience. The figures that do exist are often compiled by private organizations, offering an incomplete demographic portrait of Black migrants. For example, researchers from the Pew Research Center estimate that there are 4.2 million Black immigrants in the U.S. (Anderson & Lopez, 2018). Meanwhile, researchers from the Migration Policy Institute estimate that as of 2020, approximately 10% of the 85.7 million first- and second-generation immigrants in the U.S. are Black (Batalova et al., 2020). The inconsistency in these figures demonstrates that Black migrants are not well represented in national level data.

Native populations, in educational research, are often relegated to a footnote under an "asterisk" that justifies exclusion from research studies because of low numbers, or are completely ignored, pushed from the language of underrepresented to invisible (Shotton, Lowe, & Waterman, 2010). These types of exclusionary measures signify "statistical extermination," which are formulas sanctioned by the federal government that quantifies the validation of the removal of Indigenous existence and presence (Jaimes, 1992, p. 137). Ultimately, the conspicuous absence of Native people from federal data sets suggests a lack of commitment to Native peoples' and their

knowledge systems, which work to reinforce settler colonialism through the ongoing erasure of Indigenous presence and the ongoing theft and power over Indigenous lands (Wolfe, 2009).

Parallel Subjection to Troubling Federal and Local Education Policies

National policies like Executive Order 13769: Protecting the Nation from Foreign Terrorist Entry into the U.S. (commonly known as the Muslim ban) is an example of a troubling policy that affected Black students in higher education. Out of the 13 countries that were on this list, four of them were African nations, resulting in more limited mobility for Black students. Reflecting on the impact of this policy, Kanno-Youngs (2020) explained why this restrictive policy was particularly harmful for Black people:

> The effect on Nigeria, not only Africa's most populous country but also its largest economy, could be particularly severe. The United States issued more than 7,920 immigrant visas to Nigerians in the 2018 fiscal year, the second-most of any African country. (para. 8)

Overall, the previous presidential administration enacted a slate of restrictive laws designed to quell immigration, particularly from majority Black countries. These policies include: narrowing the number of reasons for which a person can seek legal asylum in the U.S.; increasing the eligibility requirements for H-1B work visas and increasing the number of questions on the U.S. citizenship test (Pierce & Bolter, 2020). When working in tandem, these policies make it more difficult for Black people – particularly students – to enter and safely live in this country. Broadly speaking, these policies are particularly insidious because in higher education scholarship and practice, the inherent value of immigrant, refugee, and undocumented people are tied up with their educational attainment. However, among the 3,313 non-profit colleges, universities, and community colleges in the U.S., only about 100 institutions have explicitly pledged their campuses as sanctuary campuses, where undocumented students can be safe from deportation (Funke, 2016; Moody, 2019).

Indigenous peoples are not immune to these types of racialized policies. For example, in the southwestern region of the U.S., the Tohono O'odham Nation have been battling the federal government over the imposed wall that separates families as well as restricts the participation in cultural knowledge and events that have been practiced since Time Immemorial. Former Vice Chairman Verlon Jose of the Tohono O'odham nation stated, "A wall built on the border, we believe is not the answer to secure America. Walls throughout this world have proven to be not 100 percent effective. We believe that what is effective is cooperation…These are our homelands and we want to protect them too" (Tohono O'odham Nation, n.d.). Too often, perspectives from U.S. Tribal Nations are left out of the conversation on borderlands.

Moreover, educational policies as well as on-going proposed legislations continue to threaten Indigenous and Black lifeways and reinforce assimilation aims of advancing homogeneity whiteness and neoliberal capitalism (Silversmith, 2021). Threats include: banning of race-conscious curriculum, like 1,619 project and Critical Race Theory from federal training programs; carceral networks and strategies in schooling, the oppression of trans students, and yes even exclusionary practices during graduation celebrations (i.e., not being able to wear a feather on a graduation cap (Silversmith, 2021; Pember, 2021). Although some of these policies were repealed under the Biden presidential administration, they reflect a pervasive ideology that perpetuates oppression and erasure.

Parallel Entanglement of Black Labor and Indigenous Lands that Universities Materially Benefit from Today

While Black and Indigenous students are the least likely to graduate with a college degree as well as the most likely to accrue college debt (Addo & Baker, 2021; Nelson et al., 2021), many colleges could not have emerged without and continue to benefit from a history of the enslavement of Black people (Wilder, 2013) and the theft of Indigenous lands (Nash, 2019; Lee & Ahtone,

2020). Specifically, the Morrill Act of 1862 created a higher education system that further dispossessed Native peoples from land under the rhetoric of "public" lands for the "public good" (Lee & Ahtone, 2020). The Morrill Act erased the reality that those "public" lands were already occupied by Indigenous peoples since Time Immemorial as well as "ignored the treaties that safeguarded the well-being of Native peoples" (Nelson et al., 2021, p. 17). Millions of dollars were funneled into endowments that supported (and to this day benefits) land-grant university systems. Moreover, the second Morrill Act of 1980 stipulated actions to provide college access for Blacks, but instead was part of a broader plan to settle national conflict over slavery and appease White land-grand institutions by maintaining inequitable distribution of dollars (Wheatle, 2019). Juxtaposed to these historical perspectives and current realities, 86.4% of Black and 76% of American Indian and Alaska Native (AIAN) students who graduated with a four-year degree borrowed on average $34,010 (for Black students) and $26, 380 (for AIAN) in student loan debt (Espinosa et al., 2019). Native and Black students are then faced with enormous debt upon leaving college, which can threaten their ability to achieve equitable wealth and well-being success and reinscribes debt bondage and suffering for generations.

Based on these parallels, we argue that higher education cannot be sustainable in the long term without considering the positions of and relationship between these two communities. After a theoretical discussion of Black and Indigenous thought in higher education in subsequent sections, we also pose a set of broader questions that researchers may consider when moving this discussion forward.

Intellectual Solidarity and Positionality of Authors

The two authors engage in this discussion because of a shared commitment to longevity and viability of Indigenous and Black cultures in higher education. While higher education has a long

history of being oppressive toward Black people (Hailu & Sarubbi, 2019; Grosfoguel, 2013; Wheatle, 2019) and Indigenous people (Tachine, 2018; Nash, 2019; Wright, 1991), we believe that the future of postsecondary education can and must be different. Echoing La Paperson's (2017) conceptualization of a "third university," we understand that a more liberatory university is: "...anti-utopian. Its pedagogical practices may be disciplining and disciplinary. A third world university is less interested in decolonizing the university and more in operating as a decolonizing university" (p. 10). We can advance the work of a decolonizing university by thinking about how the knowledge of marginalized groups – such as Black and Indigenous peoples – can be more prominent.

This conceptual piece is the first (of what we hope is many) collaborative writing that cultivates what Black scholar Keon McGuire referred to as, "intellectual solidarity" efforts (personal communication, n.d.). As a collective, the two authors and Keon McGuire practice intellectual solidarity by engaging in knowledge systems of Black and Indigenous thinkers that is intentional, meaningful, consistent, and deeply reflexive. We do this by meeting on a bi-weekly basis and reading texts that bridge and break apart Indigenous and Black knowledge systems, while also discussing and asking questions of the collective as a way to further connect with each other's lives and histories. When we first sought to forge this intellectual solidarity, we were inspired by the Combahee River Collective's origin stories as the creators first engaged in study groups with shared readings and discussion to help move against isolation in academe and work toward political action (Taylor, 2017). In one of our periodic reading group sessions, we clarified that solidarity should be more than intellectual engagement with written text, but a developing relationship of understanding and learning of lives, love, death, injuries, tensions, ethical commitments, and aspirations. To better understand who and how we come into intellectual solidarity efforts, we locate our social positioning in relationship to our evolving work.

The first author, Meseret, is a first-generation Black immigrant woman who does research about Black women in science, technology, engineering, and mathematics higher education. She uses a variety of critical frameworks – such as critical race feminism, transnational theory, and social and cognitive career theory – to study gender equity in postsecondary education. The second author, Amanda, is an enrolled member in the Navajo Nation. She is from the Red Running into Water clan, born for the Many Goats clan. She is connected to Diné Bikéyah, the original home(lands) of the Diné people, coming from Ganado, Arizona in *what is now* America. *What is now* signifies that her ancestors were thriving before America came to be. She explores the relationship between systemic and structural histories of settler colonialism and the ongoing erasure of Indigenous presence and belonging in college settings using qualitative Indigenous methodologies.

THEORETICAL CONSIDERATIONS

In this next section, we share what intellectual solidarity may look like by considering Black immigrant and refugee populations and ethics of communality and then we turn to Indigenous knowledge systems of relationality.

Black Immigrant and Refugee Population's Education Practices of Ethics of Communality

There is evidence that suggests how Black migrant populations move toward an ethic of communality after arriving in their host country (the U.S.) because of the experience of being minoritized (Chacko, 2003; Fries-Britt et al., 2014; Showers, 2015). Arguably, that ethic of communality is deeply entwined in racial identity and politics. For a Black person who lives in a majority Black country in Africa or the Caribbean, racial identity may not be a prominent feature of their development and educational socialization. However, once a Black person moves to the U.S., they are compelled to articulate and reckon with their racial identity since racial logics are a

part of U.S. society. As Hughes (1945) explains, race is a dominant status in this nation. This means that, in terms of socially consequential identities, race matters more than anything else. For Black immigrants and refugees, race also intersects with foreign status. This notion of racialized foreignness has been well documented in education literature (Agyepong, 2017; Kumi-Yeboah et al., 2020). For example, noticeably foreign names and accents mark Black refugees and immigrant people as Other (Adjepong, 2018; Tesfai & Thomas, 2020).

In response to this shared experience of racialized foreignness, Black immigrants and refugees may engage in ethics of communality, which are collectivist education practices that are culturally sustaining. In many ways, this ethic of communality builds on the rich history of African American people who have lived in the U.S. for many generations. For instance, Black Greek Letter Organizations on higher education campuses have a long history of cultivating community and improving educational outcomes for Black students (Croom et al., 2017; Miller & Bryan, 2020). For Black immigrants and refugees who are relatively recent arrivals in the U.S., they continue this Black tradition of communality in their own ways by sharing information and resources.

For example, Habecker (2012) observed communal approaches to living among Ethiopian and Eritrean immigrants in the Washington DC Metro area as: "Informal groups such as the mahaber ('association' or 'social club') and the ekub (a rotating savings and credit association) are forums for providing mutual social and financial support" (p. 1209). Similarly, Habecker (2012) extended the construction of cultural spaces to also include: bars, restaurants, grocery stores, and religious institutions. Often these spaces are spots for Black immigrants to cultivate community ties for survival. In Arizona, a non-profit organization called "Refugees and Immigrants Community for Empowerment" connects recently relocated populations to educational workshops

and resources, including co-curricular programming for Black immigrant and refugee youth who desire to pursue STEM careers (R.I.C.E, n.d.). Meanwhile, the Black Alliance for Just Immigration (headquartered in New York City) engages in political advocacy on behalf of Black immigrant girls and women in schools (Labiran, 2020). Cumulatively, these pockets of communal work and care help Black refugees and immigrants have access to CSP teachings of "we sustain what we love."

The construction of ethics of communality among diasporic Black populations is beneficial. In the context of higher education, this involves sharing information, mutual labor and investment, pooling resources, and cultivating academic networks. The ethics of communality are necessary for achieving culturally sustainable education for Black immigrants and refugees. While the cultural practices of immigrants are largely undervalued or rendered invisible in dominant society, recognizing them in research is necessary for supporting the wellbeing of this student group. This ethic also runs contrary to--and provides us an alternative to--many unstainable norms in higher education, including: opportunity hoarding (Hamilton et al., 2018; Hanselman & Fiel, 2017), hyper competition (Edwards & Roy, 2017; Streitwieser & Beecher, 2017), and privatization of educational goods and services (McMillan Cottom, 2017) that are rooted in neoliberal capitalism. We now turn to Indigenous knowledge systems of relationality as another example that speaks to the value of collective networks.

Indigenous Knowledge Systems of Relationality

When we talk about Indigenous Knowledge Systems (IKS), we should be careful and avoid extracting, abusing, commodifying, and misappropriating IKS while simultaneously appeasing or legitimizing settler universities to feel better about themselves, to check off the inclusion/diversity box, that positions them in ways that ascribe "moves to innocence," (Tuck &

Yang, 2012, p. 3) and then to only maintain their power of land and lives. Stein (2020) asked of us,

> Can universities shift from relationships premised on ownership and mastery (of land and knowledge) to ones premised on answerability, that is, 'being responsible, accountable, and being part of an exchange' (Patel, 2015, p. 73)? What would be the biggest challenges involved in making such a shift? (p. 17)

These questions are much deeper and expansive than Indigenous land acknowledgements that are in many ways proliferating amongst universities across what is now America and Canada (Stewart-Ambo & Yang, 2021; Red Shirt-Shaw, 2020; Vowel, 2016). IKS is not a performative endeavor, it is "rooted in the lived experiences of peoples" (Brayboy, & Maughn, 2009, p. 3). We are not here to mess with the sacred lives of Indigenous peoples.

U.S. institutions sustain and privilege ideas, processes, and systems of knowledge production. When taking up IKS, we clearly state that Indigenous peoples have been calling out, for centuries, that there are different knowledge systems that must be sustained for the betterment of not just Indigenous peoples, but for all peoples. Inspired by Cree Nation scholar Verna J. Kirkness and Ray Barnhardt (1991) who discuss the four Rs: respect, relevance, reciprocity, and responsibility as dimensions informed by IKS when working to transform the landscape of higher education. We see these four Rs as centered upon relationality. They argue that students coming to the university are expected to adapt to normalized ethos, behaviors, and the culture of the dominant White society. And when Indigenous students do not conform or assimilate to institutional norms and behaviors, they are deemed deficit and problematized as unable to succeed (Brayboy & Chin, 2020). Deficits are linked to a hierarchy of dominance and rule of Indigenous lands and minds. Programs and strategies springing forth from this dilemma are often rooted in

individualized-oriented solutions that include bridging programs, student support services, tutoring, and mentorship. These initiatives are important and do help with the transition of Indigenous students, but they also are in constant battle for legitimacy and serve as "band-aid" fixes that dismiss larger, structural issues of White dominance and hegemony on college settings. Rather, higher education institutions must take up the four Rs (respect, relevance, reciprocity, and responsibility) that are, "framed in more humanistic, culturally-sensitive terms … And as such, reflect a larger purpose than simply obtaining a university degree to get a better job" (Kirkness & Barnhardt, 1991, p. 5). Each of the four Rs are elaborated to better understand the significant interplay between them as they emphasize the relational sustainability of IKS.

Respect is the assertion of cultural knowledge, traditions and core values from Indigenous peoples as legitimate and viable knowledge. What is critical here is not only increasing the enrollment of Native peoples, but also increasing the domain of ways of knowing and respecting the cultural integrity of Indigenous peoples. Nishnaabeg writer Leanne Betasamosake Simpson asserts that, "I want them [future generations] to live without fear because they know respect, because they know in their bones what respect feels like" (2017, p. 8). What would it mean for institutions of higher education to be places where future peoples know in their bones what respect feels like? The affective aspect here is critically important because IKS recognizes that knowing (epistemology), being (ontology), teaching (pedagogy), and values (axiology) are not separated, but intimately related and expansive (Brayboy & Maughn, 2009).

Relevance is a deep consideration of the types of qualities – aligned with IKS – that govern policies and practices in institutions. For example, how might sustainability efforts align with the rematriation of land and waterways and the infusion of cultural knowledge systems? Relevance in this way is in community with *culturally sustaining pedagogies* (Paris & Alim, 2017), which ask

us, “what knowledges must we sustain in order to overcome and survive when faced with a power that seeks to sustain itself above and beyond – and sometimes shot through – our bodies?” (p. 14).

Reciprocal relationships provide possibilities for universities and local Tribal Nations to work together, learn from each other, with the understanding that institutions have to make efforts to be vulnerable, in ways that position and formulate new possible frameworks. Vulnerability is critical here, as it provides a space for institutions to critically examine ways that they maintain White supremacy, anti-Blackness, heteropatriarchy, and capitalist regimes that choke up myriad lifeways and are in many ways antithetical to IKS. Stein (2020) asserted that in the context of the settler nation state of Canada that, “we cannot begin the long-term process of changing this relationship until settlers are first willing to face the full extent to which colonial violence has shaped Canadian higher education for over three hundred years” (p. 3). IKS are centered upon relationality, a deep relationship with each other, to the land/waterways, more than human relatives, and to the universe. A constellation of relationships that is based upon kinship, presence, love, self-determination, and futurity.

Responsibility understands that acquiring a college degree, for many Indigenous peoples, is a matter of survivance (Vizenor, 1999). Minnesota Chippewa scholar Gerald Vizenor’s concept of survivance is described as, “moving beyond our basic survival in the face of overwhelming cultural genocide to create spaces of synthesis and renewal” (p. 53). Responsibility is recognizing that for many Indigenous peoples, attending institutions of higher education is an opportunity to give-back to communities and home(lands) (Lopez & Tachine, in press) which is deeply centered upon a cyclical relationship rooted in IKS of relationality, reciprocity, and a sense of nationhood (Reyes, 2019). Nationhood here is not to be confused with settler nationhood, but in the sovereignty of Native Nations. Responsibility is also what bell hooks states as, “taking

responsibility means that in the face of barriers we still have the capacity to invent our lives, to shape our destinies in ways that maximize our well-being" (hooks, p. 57). To create destinies that strengthens community well-being is our responsibility as people working in institutions of higher education. To this end, we must recognize that Indigenous peoples are not going to wait for institutions to transform, they are going to do the work (as they have always done) to create the destinies that strengthen survivance.

Possibilities for Ethics of Communality and Relationality

When considering the future of sustainable higher education, we wonder about what is worthy of sustaining? Worthy is intentionally utilized to acknowledge that there are normalized and dominant knowledge systems that have for centuries work to disrupt, tear apart, destroy Indigenous and Black lives and their connections to home(lands). Therefore, it is imperative to consider the relationship between Black and Indigenous peoples when framing sustainability. Specifically, political and intellectual solidarity should be a necessary endeavor. One of the greatest and most effective strategies of colonialism and white supremacy is dividing and stirring up tension and conflict amongst Black and Indigenous peoples who have much to be gained from a joint commitment to one another, as the Combahee River Collective shows. In education practice, the open-access virtual conference titled "Cultivating Black & Native Futures in Education" is another example of collaborative conversation and world-making, where conference organizers are providing space for "...Black and Indigenous peoples to know our shared history as survivors of state violence, genocide, and settler colonialism, and move together toward imagining collective liberation and celebration of ourselves, one another, our people, and the land/waterways" ("Call for Proposals," n.d.). Moving forward, Black conceptions of ethics of communality and Indigenous views on relationality can help institutions of higher education seek ways to build transformative

and sustaining developments in postsecondary practices and policies. Future scholarship should emerge both from these separate and distinct projects. In doing so, scholars live out Taylor's definition of solidarity:

> Solidarity did not mean subsuming your struggles to help someone else: it was intended to strengthen the political commitments from other groups by getting them to recognize how the different struggles were related to each other and connected under capitalism. It called for greater awareness and understanding, not less. (2017, p. 11)

We conclude this conceptual piece with 10 questions that higher education scholars may consider as they move this discussion forward:

1. In the place of your specific university, what are the histories of Black and Indigenous peoples? In this specific research area, what are the shared histories of Black and Indigenous people?
2. In what ways has similar research in the past harmed Black people? Indigenous people?
3. In this specific area, what are the historical areas of incommensurability among Black and Indigenous people?
4. How does this work build on the ethic of community cultivated among Black people? Among the relationality of Indigenous people?
5. How does this research cultivate respect for Indigenous peoples? For Black people?
6. How does this research cultivate relevance in the service of Indigenous peoples? In the service of Black people?
7. How does this research cultivate reciprocity with Indigenous peoples? With Black people?

8. How does this research demonstrate responsibility toward Indigenous peoples? Toward Black people?
9. In what ways have Black and Indigenous communities exhibited cultural sustainability that could shape our thinking about methodology in this research area?
10. How does this research lend itself to the sustainability of Black and Indigenous lifeways and cultures?

By taking up these questions in scholarship, we are hopeful that higher education will advance higher education sustainability.

AUTHOR NOTE

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(Un)Subjugating Indigenous Knowledge for Sustainable Development: Considerations for Community-Based Research in African Higher Education

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ABSTRACT

The most recent incarnation of development goals, the Sustainable Development Goals (SDG), call for a more intentional integration of higher education in development. Research can provide an avenue by which this done, developing relevant solutions to social problems. But who benefits from research, and whose knowledge counts in this process? Formal engagement with Indigenous knowledge, honoring the voices, artifacts, histories, traditions, and *knowledges* of those Indigenous communities that buttress the university can potentially contribute to both the social and environmental justice at the heart of sustainable development. Our research was focused on how African academics at two public universities and community members in The Gambia and Zambia

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constructed the role of Indigenous knowledge within their community-based research activities. We highlight the specific epistemic strategies academic researchers used to engage Indigenous communities and knowledge, the dilemmas faced in the field, and the connections made through research relationships to sustainable development.

Keywords: Africa, community-based research, higher education, indigenous knowledge, sustainable development

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INTRODUCTION

The relationship between development and higher education has evolved to become co-generative. The most recent incarnation of development goals, the sustainable development goals (SDG) call for a more intentional integration of higher education in development, particularly SDG 4, which highlights the promotion of inclusive and equitable education and lifelong learning opportunities (Allias et al., 2020). And, in turn, when faced with the very real threat of climate change, universities across the globe have taken up the mantle of sustainable development in their policies, practices, and relationships with communities (Franco & Tracey, 2019). While the goals associated with sustainable development were conceived in and directed by high income countries (Unterhalter & Howell, 2021), majority world countries and their institutions are increasingly connecting to and innovating upon these conceptions (Chankseliani & McCowan, 2021). Sustainable development is evidenced in changes in the curriculum, the reevaluation of campus operations, embodying associated principles in university policies, linking to community needs and services, and producing socially-relevant, applicable, and participatory research (McCowan, 2019).

In many African countries, however, the neoliberal regime has proliferated in higher education, forcing institutions, and subsequently faculty, into adopting poorly contextualized reforms that value productivity (Gyamera & Burke, 2018; Johnson & Hirt, 2012) over solving social problems, potentially confounding the university's role in sustainable development (Ulmer & Wydra, 2020). Chipinidi and Vavrus (2018, p. 146) asserted that faculty members' "professional lives as academics undergo re-constitution in a corporatized campus milieu;" as a result, research becomes a site of colonization for African faculty caught between institutional reforms, funding and productivity priorities, and their social and cultural values (Higgs, 2010). While university-generated research is seen as critical to development in Africa (Sawyerr, 2004), research is not value free and questions regarding *ends* are critical to the sustainable development enterprise (Leal Filho et al., 2015).

Who benefits from research, and, in light of the struggle described above, whose knowledge counts in the creation, development, and subsequent applications derived from these endeavors? These questions necessarily engage debates about types of knowledge and their place in the academy. Preece (2016) asserted that "dominant forms of knowledge are discursively protected through a complex system of techniques…Subjugated knowledges are localised knowledges that are often ignored by [educational] institutions" (p. 106). The conflict between knowledge systems is nowhere more evident than in African higher education (Mbah et al., 2021), where *epistemic justice* requires contestation of the relevance of knowledge to Africa within the African university (Ndofirepi & Gwaravanda, 2019).

Formal engagement with Indigenous knowledge, a cumulative body of knowledge, practices, and beliefs, and values accumulated overtime within a geographic context and the material and nonmaterial realms of existence (Emeagwali, 2014), is a mechanism by which to

problematize the lay/expert dichotomy inherent to the academy (Winberg, 2006); decolonize the neoliberal mechanisms that reinforce this dichotomy (Dei, 2014; Kidman, 2020); and further underscore a social view of knowledge and knowledge construction (Ibhakewanlan & McGrath, 2015) that may serve sustainable development best (Mbah et al., 2021). This article sought to explore research, particularly community-based research (CBR) as a form of partnership between academics and community members (Ibhakewanlan & McGrath, 2015), as an avenue by which to develop relevant solutions to social problems by honoring the voices, artifacts, histories, languages, traditions, and *knowledges* of those Indigenous communities that buttress the university, thereby potentially contributing to the epistemic justice at the heart of sustainable development.

EXPLORING THE CONNECTIONS BETWEEN COMMUNITY-BASED RESEARCH, INDIGENOUS KNOWLEDGE, AND SUSTAINABLE DEVELOPMENT AT AFRICAN UNIVERSITIES

The research reported here employed a collective, exploratory case study design guided by the question: How do African academics and their community partners construct, manage, and act upon Indigenous knowledge to advance sustainable development? Specifically we were interested in how faculty members engaged in community-based research and their community partners envisaged the nature and place of Indigenous knowledge in the African university. The contexts for this exploration were two public universities, in total, in Zambia, a Southern African country of approximately 16 million, and The Gambia, a West African nation of 2 million. Both countries are linguistically, geographically, and ethnically diverse, laying claim to many Indigenous communities, cultures, and languages. Furthermore, each country references a connection to sustainable development and education in their national development plans (Mbah et al., 2021).

Our work was post-colonial and qualitative in that we acknowledged how traditional research approaches often suppress other ways of knowing and privilege elite and Eurocentric knowledge (Chilisa, 2012); consequently we attempted to disrupt this by focusing on the stories and experiences of African academics and community members (N=90). Specifically, our participants were faculty researchers at public universities in Zambia (n=34) and The Gambia (n=28) and community members who participated, to varying degrees, in university-community projects in both countries (Zambia, n=16; The Gambia, n=12). Faculty had on average 9.5 years of experience across the institutions and were representative of a variety of disciplines, subjects, and units. Community member participants were predominantly farmers, but also represented traditional healers, village administration, and business operations. We were responsive to the gender dynamics characteristic of both groups, intentionally oversampling women academics and using culturally appropriate, but gender sensitive data collection techniques with the community (i.e. gender segregated talking circles).

After receiving ethical clearance from the case universities, our data collection process entailed relational dialogues with faculty members who practiced CBR, as well as talking circles with community members in villages adjacent to the university. Relational dialogues and talking circles are Indigenous approaches to face to face research methods that honor life stories, connect to the environment, and privilege collectivist constructions of knowledge (Chilisa, 2012). Data analysis included using in vivo coding techniques initially, by case, to emphasize the expressions of our participants (Saldaña, 2016). Then, through categorical aggregation, we put the parts of the data corpus deconstructed during coding back together to create an overall interpretation of the cases (Stake, 1995). Here we highlight how faculty understood Indigenous knowledge, the specific epistemic strategies academic researchers used to engage Indigenous communities and knowledge,

the experiences of community members with university research, the dilemmas faced in the field, and the connections (both real and potential) made through research relationships to sustainable development.

What is Indigenous Knowledge?

> "So, it is not true that indigenous is static, a lot of things keep changing and that what we research here and that's what we as academia do to marry this Indigenous knowledge with research to improve it." (Faculty, Languages, Zambia)

There are a plethora of definitions for the concept of Indigenous knowledge as it is unbound by disciplinarity (Mawere, 2015) and "as diverse as there are voices that utter the term" (Ezeanya-Esiobu, 2019, p. 6). Dei (2011) emphatically discouraged the universalizing of Indigenous knowledge through definitions and asked us to consider, instead, issues of politics, identity, language, culture, and history. Due to the contestations and complexity of this concept, we spoke with faculty researchers' engaged in CBR to share their understanding of and experiences with Indigenous knowledge as a starting point for conversations about research, community relationships, and sustainable development at African universities.

Several characteristics emerged from this questioning: that Indigenous knowledge provides solutions to communities' problems; that it contrasts with so-called "Western" knowledge; and that finally, it complements academic knowledge. Overwhelmingly our academic participants from both countries focused their descriptions on the use of local knowledge to solve local problems.

> Indigenous knowledge is knowledge that is locally produced, of course, that is not externally imposed. That is for example, if people have a solution [to] a problem, if you have a problem in their communities, and what knowledge is used to solve that problem,

> for example. It's not externally produced; it is internally produced. (Faculty, Political Science, The Gambia)

Participants often defined Indigenous knowledge in contrast to other types of knowledge, specifically that of traditional, disciplinary, empirical knowledge.

> My understanding of Indigenous knowledge is that it is a very complex set of knowledge, skills and technology... And this knowledge has been transmitted from one generation to the other, and it has helped them a lot to adapt to their various specific cultural environments over time. This knowledge is dynamic; it changes and this knowledge continues to evolve over time. So, it is specific to the people and it contrasts with what I call an experimental knowledge that is a Western-based investigative, and empirical knowledge. (Faculty, Social Work, The Gambia)

While others saw disciplinary knowledge as complementary or inherent to Indigenous knowledge, seeing a hybridity that benefits the society.

> Indigenous knowledge, from my own perspective, is knowledge with the people down in the community...They must have some knowledge, and you the health worker too has knowledge, you are just trying to complement what they've already known. And in complementing what they've already known, it will yield better efforts in trying to bring in quality care, and quality life, lifestyle. (Nursing, The Gambia)

> I think Indigenous knowledge is knowledge that is usually community based; it could be contextual in a certain locality…and *some of it is so scientific based that when you are doing research you may find that they have this knowledge* [emphasis added] but they have no scientific explanation for it...and sometimes in communities they will say, 'Well but

> what you are doing is nothing new because our forefathers, our grandfathers, this is what we used to do.' (Faculty, Veterinary Science, Zambia)

Cumulatively, participants from Zambia and the Gambia captured the complexity of Indigenous knowledge as a dynamic, distinct, localized knowledge central to community survival.

Participants often saw Indigenous knowledge in contrast to other types of knowledge, underscoring the "politics of knowledge" inherent to African institutions where "the university is alienated from the society in which it is found" due to (neo)colonialism (Ndofirepi & Gwaravanda, 2019, p. 583). Notions of complementarity, however, capture an increasing movement in African academic circles toward the decolonization of the university knowledge systems and the re-centering of an African, Indigenous epistemology (Ndlovu-Gatsheni, 2017), thus appreciating that both knowledges do not exist in isolation to one another (Shizha, 2013). As that last quote evidences, Indigenous knowledge *is* scientific knowledge, which troubles the notion of dichotomy. This perspective is consistent with "African Science" theorizing (Mawere, 2014), which sees "science as residing in social and cultural bodies of knowledges" (Asabere-Ameyaw et al., 2012, p. 217), and serves as a pivot point for considering the role of Indigenous knowledge in sustainable development.

Indigenous Knowledge and Community-Based Research Methods

> "It's a form of empowerment; actually people own that knowledge because they are locally generated ideas and they actually have that ownership instead of someone coming to impose things on you." (Faculty, Social Work, Zambia)

Community-based research contends best with the complementarity of knowledge systems, placing academic researchers on the ground with Indigenous communities and their ways of knowing while seeking solutions to context-specific problems. In order to understand how these

partnerships worked, we asked faculty researchers to describe the *research methods* that work best when undertaking CBR in communities and engaging Indigenous knowledge. While participants often recounted the use of conventional research methods, they also relied on culturally appropriate paradigms to engage the community more meaningfully in the process: "African community based research is more process oriented, in that it does not necessarily aim at a certain 'product,' but rather at strengthening the knowledge that already resides in the community" (Higgs, 2010, p. 2419). Below we highlight context-specific, complementary, and epistemic CBR practices used by our participants in their research projects; specifically we focus on their cultural engagement practices.

Epistemic Authorities

Faculty participants often underscored the critical importance of connecting to epistemic authorities in communities prior to beginning their CBR engagement process. Kaphagawani & Malherbe (2003) identified epistemic authorities in Africa as "people whose wisdom and knowledge of the traditions, the folklore, the values, customs, history, habits, likes and dislikes, character and thought, of their people is very great" (pp. 268-269). Participants describe how these individuals were essential to access community knowledge.

> We interact with, for instance the chiefs, headmen and other leaders within the community – could be the church leaders or sometimes the civic leaders, but those who have the influence over the wider community...You are always interacting with them, you engage them, you always find out from them what should be done, what are they facing, and what do they think could be the best solution. (Faculty, Social Work, Zambia)

> I think yes, you should be engaging them, and I think the best way to access them is like creating awareness. Maybe using the locally available, if it is radio in their region, or their

> *alkalos* [village chief or leader] or their way of drumming; using drums to announce to them, to the local people... (Faculty, Nursing, The Gambia)

Epistemic authorities in these contexts were gatekeepers of knowledge. The focus of our participants was on using context-dependent strategies to engage and access truth-telling, underscoring both the cultural know-how of the academic researchers and their belief in community knowledge as a *truth*. "Methods based on philosophic sagacity enable researchers to consult a larger body of knowledge from the sages that is not available in written literature" (Chilisa, 2012, p. 211). Across disciplinary backgrounds, faculty researchers saw themselves relying on sagacity that assisted in developing locally-bound solutions, requiring culturally-appropriate engagement plans that engendered trust and awareness in the community. These research practices were essential to engaging Indigenous knowledge for sustainable development, according to participants.

Language

In both contexts, knowledge of the local language emerged as an important factor in faculty community-based research projects at the case universities. Language policy in Africa is highly controversial, due to the history of colonialism and ensuing "linguicide" that resulted in the destruction of Indigenous ways of knowing and local cultural traditions and identity (Babaci-Wilhite, 2015). There are 53 languages spoken in Zambia and 10 in The Gambia; these languages are essential to Indigenous group identity salience, maintenance, and survival (Ward & Braudt, 2015). Our participants captured the relationship between knowledge and language when they spoke about the use of local languages in their CBR work.

> In the local language, they call it the 'Bantaba.' It's a kind of community centre possibly under some trees with spread mats and chairs and whatever. So, we talk to them and then

> we get interpreters, you know. Mostly we have our students as facilitators, because they're Indigenous, and they speak the language. (Faculty, Development Studies, The Gambia)
>
> So, using more local languages, embed local languages into more…into research and make them informal. Because here we are very informal, as a culture. We like informal conversations; you meet people, start informal conversations...even though you have to be aware of your ethical responsibilities as a researcher. (Faculty, Political Science, The Gambia)

Several elements emerged from participant descriptions of the role of language in their CBR: the need to communicate with participants in a culturally appropriate way (e.g., gathering under the bantaba tree), engaging Indigenous students in the research process, and combining cultural norms with ethical research practice.

By including Indigenous students in the research process, faculty researchers demonstrated, implicitly, the significance of student culture, identity, and language. Indigenous language is often not valued by education systems in Africa (Shizha, 2015), thereby contesting the identities many students come to the educational process with (Dei, 2014). Increasingly, at the postsecondary level, African scholars suggest that student involvement in the community may play a decolonizing role within the university, exposing students to and engaging their *own* forms of knowledge (Preece, 2016). By capitalizing on student's own Indigenous knowledge, faculty increase the relevance of education to Indigenous students and to sustainable development, as students explore their environment, understand more fully its challenges, and participate in knowledge creation (Yared et al., 2020).

Indigenous identity was valued by the faculty participants and had a valued role in their CBR practices in terms of generating awareness, communicating effectively with participants, and

engaging cultural norms in order to develop locally relevant solutions in partnership with Indigenous communities. As a community member in The Gambia stated,

> We can work with the university. Because we will know something that the university don't know, and university will know something that we don't know. Then there it's just about sharing knowledge. I take yours; you also take mine. I think that is the best for partnership. (Farmer, The Gambia)

All community-based work in Indigenous communities must take into consideration the relationship between Indigenous language, knowledge, culture, and identity in the research process in order to include development as a goal (Boadu et al., 2020), thereby producing partnerships where communities (academic and Indigenous) learn from each other to develop solutions to pervasive community development challenges.

Dilemmas for Institutional(ized) Researchers in Indigenous Communities

> "Is it wise for [Indigenous communities] to create their own knowledge through some efforts, and, now you just come and grab it and go with it and then it becomes your knowledge?" (Faculty, Social Work, The Gambia).

Sometimes, however, the quest for knowledge and development through research can disenfranchise the community. Participants, both faculty and community members, noted academic practices that interfered with productive community-researcher relationships and authentic engagement with Indigenous knowledge. The university has structures that inform academic behavior to which faculty researchers are institutionalized (Chipindi & Vavrus, 2018) and that may infringe upon the developmental potential of research (Nakweye, 2020). Expectations enforced by the neoliberal university ideal replicated in Africa are often at the root of this infringement, creating dilemmas for researchers and community members.

Parachuting

The first of these dilemmas was the practice of "parachuting": "you don't know anything and then you get out of there" (Faculty, Languages & Literature, Zambia). Essentially, this was described as a researcher dropping into a community, with little preparation, collecting data, taking advantage of community resources, and then never returning to share the findings. So while community members expressed a great deal of enthusiasm for connections to the university, they opined that they didn't tangibly benefit from this engagement due to parachuting practices:

> The information usually does not trickle back...you know we are facing this type of problem but when they go back when they go to their centers after doing the research usually they don't come back and report to say you can solve these problems by these and these, they don't come back. (Farmer, Zambia)

Mosavel et al. (2005) explained this disconnect as the tension between research and service delivery in CBR. Here the authors note in particular the dependence on funding and its impact on ethical obligations of the researcher, highlighting the differences between the expectations of the academy and that of the community and unequal power in the research process (Chilisa, 2017).

Participants from both countries noted this dependence on funding and its impact on the size of their projects, the inclusion of additional personnel, and the actual benefit of the project to the community. Indeed a lack of external funding to undertake research that would impact sustainable development goals has been cited as a major barrier to sustainability in African universities (Ulmer & Wydra, 2020). Further, the tension between research and community commitments underscores research as a site of struggle for African researchers, where funding and publications are preeminent in the neoliberal university (Mamdami, 2007; Mbembe, 2016), potentially contravening their ability to realize the ethical obligations inherent to CBR.

Dissemination Practices

A related dilemma is that of knowledge dissemination. Faculty researchers were also institutionalized to focus their research output on traditional dissemination practices over continued engagement. Many faculty participants, when asked about how they disseminated the work produced from engaging with Indigenous communities and their knowledge, listed traditional *academic* routes...ways inaccessible to the community from which the knowledge originated. As a community member in The Gambia succinctly stated,

> In my view, the difference [in knowledge], the main, main difference is [the] university's knowledge is based on paper. Our knowledge is based on trees, based on the Qur'an, and based on science...in my opinion, that is the main difference. (Farmer, The Gambia)

The focus on traditional dissemination was further challenged by a seeming lack of respect for African research and receptivity to Indigenous knowledge among academic knowledge gatekeepers: journal editors.

> First of all for an African researcher or the research within the Third World, when you look at most of the editors that sit on these popular journals, they are not Africans for example, and also from the worldview, very few have got an open worldview in terms of appreciating the way things are done elsewhere...I wouldn't say that it is easier for an African researcher to know, publish, or document because of what I have explained. These international publishers are controlled by very powerful people. (Faculty, Psychology, Zambia)

Holscher (2018) suggested that knowledge gatekeeping is immoral, rendering university relationships vulnerable to the replication of context-based injustices. The dilemma described above captures the pervasive control of knowledge, knowledge dissemination, and the privileging of knowledge by Minority world, "Western" journals and editors.

The focus on dissemination through traditional academic routes fosters the epistemic injustices already present within the African university. The result? A loss of Indigenous knowledge.

> I'm the alkalo. There are, some knowledge... the sad thing is that, some of us, our knowledge we will live with it until we die, then we are buried with it. That's gonna be the end of it. (Community member, Farmer, The Gambia)

The "market debasement" of higher education in Africa, evident in the focus on external funding and productivity, contrasts with the social responsibility of the university (Baatjes, Spreen, Valley, 2011) to preserve knowledge for development.

The *Unsubjugating of Knowledge: Higher Education for Sustainable Development*

> "Without research there will be no sustainability, and then nothing will work. So research is the most powerful tool in any development, any sustainable development. So, without that then there is nothing because you will never know what is going on." (Faculty, Math, The Gambia)

Universities must leverage their capabilities to overcome dilemmas that may contribute to the loss of Indigenous knowledge. "The appreciation, documentation, inculcation and eventual implementation of [I]ndigenous practices and adaptations toward sustainable development are contingent on the curation of different knowledge systems by the university" (Mbah & Fonchingong, 2019, p. 4244). The use of culturally appropriate and contextually relevant CBR by faculty researchers is one way to both appreciate and document Indigenous knowledge for sustainable development, as CBR inherently focuses on developing collaborative solutions through research. However, as described above, the current model of higher education is

"contextually impoverished" (Mbah et al., 2021, p. 2), potentially challenging the role of CBR and its liberatory possibilities.

Barnett (2011) suggested that an ecologically driven university, unlike the current neoliberally-influenced model, is characterized as one for others (p. 452), reflective of Ubuntu philosophies often associated with education in Africa and consistent with the African university's *becoming* (Aina, 2010). In this version of the university, academic excellence would be context-specific, anti-colonial, decolonized, community-engaged, and orienting "the learner to history, culture, tradition, past, and identity as both contested, concrete, and meaningful" (Dei, 2014, p. 165). Moreover, from this perspective, sustainable development becomes a critical mission of the university as it orients *itself* toward a diverse network, that includes the local Indigenous communities whom it serves and in which it is founded, to ensure epistemic justice and a balanced and equitable approach to the development of itself, the local community, and the environment (Mbah, 2016; Mbah et al., 2021).

CONCLUSION

Academics at African universities as community-based researchers are potentially powerful actors within this context as they are often the closest to Indigenous communities and preserve a relational perspective of the individual, a social view of knowledge, and a "unity of relationship, between the divine and material/human world" (Ibhakewalan & McGrath, 2015, p. 5). This approach to CBR enables scholars to *unsubjugate* culture, identity, language, and Indigenous knowledge and grow the community's role in co-generating sustainable solutions to social, political, economic, and environmental problems. "A sustainable society depends upon a sustainable culture. If a society's culture disintegrates, so will everything else" (Hawkes, 2001, p. 12). As members of the African university, faculty and their community partners are already doing

the work of sustainability, despite the many challenges; ours is the work of supporting, providing venues, funding, disseminating, and epistemically *privileging* the knowledge created in the face of such challenges.

AUTHOR NOTE

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Cultivating Enduring and Reciprocal Relationships in Academia: An Indigenous Mentor-Mentee Model

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ABSTRACT

This article takes form following an exchange of letters in which the Chickasaw and Hopi authors reflected on an Indigenous mentorship relationship in higher education as the embodiment of a carved-out space for Indigenous ways of knowing and being. They begin the story of their faculty mentor-doctoral mentee relationship with the memory of the mentee's graduation from the doctorate program and the gifting of a shawl. This moment was both a culminating and rebirthing of a relationship, an Indigenization of the institutional university hooding graduation ceremony. The authors privilege an Indigenous gift paradigm based in values of care and notions of kinship. Together, they ask and explore questions of how such a gift paradigm is created, enacted, and sustained in higher education. They reflect on practices which cultivated, nurtured, and sustained the mentorship relationship through the years from

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admission and leading up to the doctoral graduation ceremony, and beyond.

Keywords: doctoral mentorship, gift paradigm, indigenous education, language revitalization, relationships in higher education

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PROLOGUE

This article takes form following an exchange of letters in which we (Kari and Sheilah) reflected on our mentor-mentee relationship that began at the University of Arizona (UArizona). We open with our introductions, positioning ourselves as Indigenous scholars, and then relate a defining moment in our shared story.

KARI: Chokma, saholhchifoat Kari. Chikashsha saya. Greetings, my name is Kari. I am a citizen of the Chickasaw Nation. I am an assistant professor of Indigenous Education at the University of Oklahoma. I am writing from the Chickasaw Nation, where I currently live. Through my scholarship and life's work, I am reclaiming my ancestral Chikashshanompa' (Chickasaw language). I earned my doctorate from the UArizona, where Sheilah was my faculty mentor.

SHEILAH: Askwali, uma yev itamumi tuqayvastoti. Nu' Sheilah yan Pahanmaatiswa. Nu' Hopisino. Thank you for your attention. My English name is Sheilah. I am from the Hopi community located in what is now known as Arizona. I am both an alumna and professor of Indigenous Education / Indigenous Language Education at the UArizona. I work to research ancestral knowledge respectfully, reclaim Indigenous ways of knowing and validate and advance Indigenous knowledge systems as important contributions to scholarship. Kari was my first Indigenous student mentee from admission to graduation.

A (Graduation) Ceremony

KARI: For many graduates and their families, May 13, 2016, the UArizona College of Education (COE) convocation ceremony was a momentous event. The celebration began early. In the weeks prior to the convocation ceremony, I was selected to receive the outstanding graduate student award for the COE. I was humbled and honored to receive this award, which included the opportunity to give a speech and also to sit on the stage with COE faculty and leadership during the ceremony. During my speech, I gave voice to Chikashshanompa'. It was likely the first time most in the large audience had heard of Chikashsha okla (Chickasaw people) and of our language. It felt good to honor my ancestors, Asipóngni', my family, anchokka-chaffa', who traveled from out-of-state to attend the ceremony, as well as to represent the Chickasaw Nation. After the speeches concluded, it was time for the students to cross the stage and receive their degrees. I lined up among the doctoral degree recipients and waited until my name was called. It was then that you walked out to me, met me at the center of the stage, and wrapped me in a cream-colored shawl with blue and brown accents and teal fringe.

Figure 1

The Gifting of the Shawl

SHEILAH: This takes me back to that very, very, very, precious time, event, and celebration – your graduating and importantly, publicly recognizing, honoring, and sending you off to carry on the "work" through the academy's tradition of "hooding." In the Hopi belief, you were a kyeele, a fledgling hawk, who had advanced to maturity and was ready to pave your own path. Now, I was sending you off with all the following: pride, appreciation, gratitude, encouragement, love, respect, and a strong belief that you would do good things and contribute much. All of these heartfelt thoughts, feelings, and spirit were/are embedded symbolically in the shawl, taapalo, itself, and in the process of enfolding you, usitoyna, in the moment with pride. I witnessed this practice of wrapping an individual, usually a woman, in a shawl on numerous occasions; at the core, it is a heartfelt expression of a relationship established over time. In our case, it was a growing reciprocal relationship – your seeking guidance and support and my observation of your receiving, accepting, and acting on it. I now understand how maturity and authentic seeking of support and accepting guidance manifests; it is fulfilling.

INTRODUCTION

Together, we reflectively explore the evolution of an Indigenous mentorship relationship in higher education. Through our writing, we illuminate how our Indigenous ways of knowing, being, and doing surface and move us toward a true model of a reciprocal relationship that is informed by our Indigenous sense of relationality. At the same time, we call attention to the neglected history of institutions of higher education as situated on Indigenous lands. Our mentorship relationship began at the UArizona – a land-grant or, more accurately, *land-grab* (Lee & Ahtone, 2020) university in Tucson, Arizona, on the homelands of the Tohono O'odham and

the Pascua Yaqui Peoples. Remaining steadfast in its "institutional invulnerability" marked by "institutional unresponsiveness" (Kirkness & Barnhardt, 1991, p. 13), at the time of writing, UArizona has yet to make adequate reparations to Indigenous peoples in terms of building strong, reciprocal relationships with Indigenous communities and increasing the representation of and support for Indigenous students, staff, and faculty on campus. In terms of graduate education, UArizona touts itself as the leading institution in the US for doctorates awarded to American Indians and Alaska Natives.

During the time Kari attended UArizona, from 2012 to 2016, 30 American Indians and Alaska Natives completed doctoral degrees, accounting for just 1.4% of all doctoral degrees awarded by UArizona during this period (National Science Foundation, 2017). Given that American Indians and Alaska Natives represent just over 5% of the population of the state of Arizona (U.S. Census Bureau, 2019), the university projects an equity rhetoric that does little in terms of serving those to whom it is responsible. This situation is not unique to UArizona, as less than one percent of all doctorate recipients in the United States each year and similarly, less than one percent of all university faculty, are Indigenous (Brayboy et al., 2015); this speaks in particular to Indigenous mentorship, a critical institutional support (Pihama et al., 2019). Thus, in the absence of overarching institutional support, Indigenous persons have worked from within the University to "seize academic power" in Indigenous-controlled spaces (Gilmore & Smith, 2005). Our mentorship relationship is the embodiment of a carved-out space for Indigenous ways of knowing, being, and doing work from within the academy propelled by aspirations to benefit our communities. Fundamentally, as Indigenous scholars, we pursue our work from a strong sense of our Indigeneity cultivated and nurtured in the pursuit of our academic aspirations.

We begin telling the story of our mentorship relationship with the memory of Kari's graduation and the gifting of the shawl. We look back on this moment as both a culminating *and rebirthing* of our relationship captured in enfolding of Kari with a shawl, an Indigenization of the institutional university hooding graduation ceremony. This act exemplifies moving beyond survivance (Vizenor, 1994) to *thrivance* – "the ability to flourish and deepen scholarship [and] thoughtways… in the service of [Indigenous] communities, their ancestors, and for generations yet to come" (Walters et al., 2019). Further, the act exemplified what it means to act unapologetically with cultural integrity (Brayboy, 2005a) as Indigenous scholars.

SHEILAH: When I look at the photos, I wonder what reaction and impression we made? I don't recall any one of my colleagues asking me about the shawl prior to the hooding nor after. It was our private celebration – this is what I cherish. The backstory is that I searched to purchase the shawl over several months; ironically, the fact that I've expressed that I am an 11th hour person, I was giddy with the anticipation of the moment of "ung usiitoynaniqe, to wrap you/enfold you" in the symbol of celebration. What I had in mind was nowhere to be found. I sent out word that I was looking for a shawl and possibilities of those who made shawls were offered, and I visited these individuals, but none fit my image. Finally, a colleague contacted me about her intentions to make a shawl; she invited me to her house to show me the material – it was the one; it showed itself to me. So, the shawl was also specially made for you, not just bought off a rack. I couldn't have been happier at how it worked out.

KARI: This memory is so special to me, and I will also never forget what you said later – that you didn't ask for permission from the university for this ceremony; you just did it. I have held this moment close to my heart because of the important teaching it offers:

We, as Indigenous scholars, don't need to ask permission from the university to act with integrity.

In telling the story of the shawl and our mentor relationship, we privilege an Indigenous gift paradigm based in "values of care, cooperation, and bonding" (Kuokkanen, 2007, p. 30) and notions of kinship. Together, we ask and explore questions of how such a gift paradigm is created, enacted, and sustained in higher education. We reflect on practices that cultivated, nurtured, and sustained our mentorship relationship through the years from admission into a doctoral program and leading up to the graduation ceremony, and beyond.

RELATIONAL STORYTELLING AND MENTORSHIP FROM THE HEART

Our approach to this storytelling is dialogic and relational. We are inspired by Archibald's (2008) conceptualization of Indigenous Storywork and we have drawn on this approach over the years to story our language revitalization and reclamation work (see McCarty et al., 2018; Chew et al., 2019; Chew et al., forthcoming). We have done our best to retain qualities of oral storytelling important in both of our cultures. In order to capture words from the heart (Marmon Silko, 1996) while writing collaboratively, we began our writing process by exchanging letters via email. Letter writing is a way for us to express heartfelt words similar to how we might say them aloud – uncensored, uncited, unrevised. The same words spoken from the heart were conveyed and enacted in real time, such as the public gifting of the shawl – the graduation hooding.

After several weeks of correspondence, we began the process of writing our story in the form of this article. Similar to Leanne Betasamosake Simpson and Eve Tuck's sharing of personal correspondence in academic writing, we have "ke[pt] back parts [of our exchange] that were just for us, and fine-tun[ed] other portions for a public audience" (Simpson, 2016, p. 19). In speaking to a public audience, we weave excerpts of our written expressions together with the writings and

insights of other scholars to tell a story of Indigenous mentorship in higher education. In the process of merging expressions of perceptions (Ortiz, 1978), we further embody what Ojibwe scholar Scott Lyons (2000) defines as *rhetorical sovereignty,* which couples the inherent right and ability of a peoples to determine their own communicative needs with the role of literacy in respect to the "goals, modes, styles and languages of public discourse" employed. Enacting in real time, the gifting and receiving of the shawl, we assert, is a form of rhetorical sovereignty.

In the same way that we understand our writing as coming from the heart, we understand the work of mentorship as coming from the heart. We consider a distinction between "being" a mentor "where one is fully engaged in mentoring from a heart level and as a core identity" and "doing" mentoring, "where one engages in a momentary or temporary action that would be defined as an act of mentoring" (Barcus & Crowley, 2012; Straits et al., 2020, p. 156). Through our mentorship relationship, we have cultivated the processes of "coming home to our true selves," nurtured the development of distinct Indigenous academic identities *within* the academy, and continue to support and sustain these anchored conceptualizations of "our authentic selves" beyond the ivory tower, poignant expressions of emerging scholars in a course titled, Indigenous Well-Being Through Education, at the UArizona.

Notions of (re)membering (Absolon, 2011) ourselves to ancestral ways of doing, and more aptly adapting them to contemporary times and circumstances, demonstrate not only Indigenous thrivance, but more so, conducting "good research," and overall "good work" for and with our own *and* the global community (Wilson, 2008; Ray, 2016) from a sense of Indigenous well-being and reciprocity. Thus, we recognize that we were/are inherently guided by Indigenous paradigms, worldviews, principles, and processes that are "wholistic, relational, inter-relational and interdependent with Indigenous philosophies, beliefs and ways of life" (Absolon & Dion, 2015, p.

23). Grounded in this understanding, we extend an invitation to readers to continue listening to our story told from Sheilah's perspective as mentor and giver of the shawl and Kari's perspective as mentee and recipient of the shawl, an encompassing symbolic expression of Indigenous sovereignty, resilience, and love in a space of higher education.

COMING TO THE UNIVERSITY, FINDING KIN, AND BUILDING COMMUNITY

> KARI: When I was preparing to go to graduate school, one of my mentors at the time advised me to seek who I wanted to work with rather than seeking programs by discipline, so I reached out. Prior to coming to UArizona to work with you, I completed a master's degree at another institution. I had attended that university to work with a non-Indigenous linguist who was renowned for research on Indigenous languages, including Chikashshanompa'. While I found access to information about my language at the university, this institution was devoid of the Indigenized space within which to claim and develop an identity as a Chikashsha scholar (Chew et al., 2015). When I chose to pursue my doctorate, my priority was not finding a mentor with expertise in Chikashshanompa' but rather finding a mentor who would support me on my personal path. I chose the Language, Reading, and Culture (LRC) program in the UArizona COE because I wanted to work with *you* – a Hopi woman doing the type of research I also wanted to do. I even declined an offer from a university very close to my Nation because LRC was the only program which could offer that.

We share a common passion for and commitment to attending to our ancestral languages; understanding and addressing Indigenous language shift, loss as well as identifying potential sites of vitality are at the core of our work at a very personal level on behalf of our own communities as well as a broader issue for Indigenous Peoples globally. Our academic journeys have been

entwined with strengthening our own linguistic and cultural identities hence offers prospects for reclamation of Indigeneity through language in institutional spaces. Thus, we recognize such institutional spaces as significant if not essential to our aspirations to contribute to community survival, renewal and continuity through language reclamation/ revitalization efforts as an emerging field within Indigenous education. Moreover, Kari's search for mentors to encourage, support and guide her academic aspirations also brought attention to the *potential* she brought into our scholarly community; potential to cultivate, nurture, and protect as well as to *harness* the richness of her distinct cultural identity as assets for inspiration and hope (Wright et al., 2019).

> KARI: I remember coming into LRC and this established community of practice. You were assigned as my advisor, and you informed me that Dr. Perry Gilmore and Dr. Leisy Wyman would also be on my committee. I felt taken care of because I didn't even have to ask any of you to be on my committee- you all just came around me. Not only that but you brought me into your professional circles. In the first year of my program, I was going to conferences with you all and meeting other Indigenous scholars whose work I had read and valued. As a committee, which later came to include Dr. Ofelia Zepeda, you all offered me a lot. The mentorship relationship with you and my other committee members was vastly different than what I had experienced in my master's program. Rather than a transactional, "banking model" of mentorship (Freire, 1970), in which advisors treat advisees as "repositories of information to whom they make 'deposits'" (Mullen, 2009, p. 16), the relationship was reciprocal and envisioned in terms of kinship. I'm deeply appreciative of these experiences because they shaped who I am as a scholar today.

Scholars in the field of Indigenous education have successfully paved inroads within academia, creatively using programmatic and academic strategies to foster a *scholarly community identity*, "seeing oneself as a legitimate and fully participating member of a scholarly community" (Gilmore cited in Galla et al., 2014, p. 7). It is an intergenerational mentoring process and strategy recurrent, modeled and sustained through connections and relationships among Indigenous students and both Indigenous and non-Indigenous established scholar-mentors.

Indigenous scholars in academia, themselves, have mapped their collegial relationships onto Indigenous kin relationships. For example, one group of Indigenous women scholars in higher education describe themselves as part of a "collective sisterhood" that connects their "identities, values, and teachings as Indigenous women" to their scholarship (Shotton et al., 2018, p. 636). Finding kinship is vital to creating and sustaining a sense of community within the academy. At the same time, it is critical to note that, because kinship differs across communities, these relationships cannot be imposed but must emerge from a mutual understanding of the relationship and the responsibilities that come with these relational roles (Windchief & Brown, 2017, p. 339).

Through the mentorship relationship, Sheilah came to characterize her relationship with mentees as a godmothering relationship. This affirms that mentorship is a "kinship responsibility" that "is about the relationship, and it has no ties except respect and caring" (Barcus & Crowley, 2012. p. 75; Kuokkanen, 2007). Because mentorship is a reciprocal relationship, in which both parties invest in the relationship to teach and learn from each other, "it is hard to see where [mentorship] begins and it can be never ending (Barcus & Crowley, 2012, p. 75; see also Galla et al., 2014). Further, a kinship model of mentorship situates the one-on-one relationship within a larger network of extended family; Kari as part of an academic genealogy (Sugimoto et al., 2011)

benefited from the mentorship that Sheilah had received as a graduate student and subsequently in her transition into a tenure-line position.

> SHEILAH: Your letter takes me back to my transition from graduate student to a tenure-line faculty member in the LRC Department. This was significant for the fact that there was no position open for application; rather, I was on a job search and had short listed at Arizona's two other public universities. Both of these positions were in American Indian Studies. Dr. Norma González, Department faculty approached me at a conference we were both attending. She, Dr. Perry Gilmore, and others had worked together to create a "target hire" position to keep me at the UArizona premised in my work in Indigenous language revitalization. Although a graduate student in American Indian Studies for my masters and doctoral programs, I had established a long-term relationship with LRC faculty through my coursework – Dr. Teresa McCarty, my Chair, and Drs. Perry Gilmore, Leisy Wyman and Ofelia Zepeda in the American Indian Language Development Institute (AILDI) housed in the COE. This was truly a significant moment for me because while my attraction to both NAU and ASU was to join their community of Indigenous scholars, the deciding factor was the message conveyed by the LRC to support my continuing work in Indigenous language education and specifically in Indigenous language revitalization.

Through a network of kinship relationships, Indigenous and allied scholars engage in community-making and -sustaining at the university and, in turn, strengthen our aspirations as community-engaged scholars and in advancing capacity building. Established scholar-mentors working with, supporting, and promoting Indigenous students in such scholarly community spaces such as LRC and AILDI demonstrate the potential for cultivating and establishing a pathway from

graduate school to career. Working from and within a sense of kinship and being in good relation to each other, we are able to draw on our aspirational capital, to "hold onto hope in the face of structured inequality" (Yosso, 2005, p. 77), to navigate the university in ways that manifest in Indigenous transformational resistance, and to acquire "skills and credentials through formal education…in a way that enable[s] [us] to serve [our] tribal communities" (Brayboy, 2005b, p. 194).

The community of practice model was broadened, informed, and influenced by the notions of *empowerment* – voice (heard and to have influence) and agency – of our late colleague, Dr. Richard Ruiz (see Combs & Nicholas, 2012). He pointed out that "empowerment" is about teacher-mentors, scholar-mentors, using their agency and power in creating the conditions and environment for students to empower themselves through participation and engagement in transformative possibilities. Such transformative possibilities are cultivated and nurtured within Indigenous *cultural spaces* (Pihama et al., 2019) and into which incoming students are welcomed by a close-knit network of scholars and practitioners who will prepare them to carry the torch forward.

BELIEVING IN ONE ANOTHER WHILE NAVIGATING INSTITUTIONAL CONVENTIONS

KARI: I have one memory that stands out in terms of your mentorship. At the beginning of my program, I took my qualifying exam, which one of my other committee members referred to as "the last friendly exam" of the PhD program. The next exam, the comprehensive exam, was at the end of my coursework. The exam never felt "unfriendly," but it was certainly more rigorous. I worked hard to prepare as an individual to demonstrate to the committee that I had gained the body of knowledge necessary to move to the next

stage of my training as a scholar. Prior to the exam, we met and you gifted me a root. You told me how to use it as medicine for protection as I went through the exam. This moment was important because it made the exam feel like less of an institutionally-mandated event and more like a rite of passage on my journey as a rising Indigenous scholar. The process became ceremony.

SHEILAH: Academic discourse and conventions have been and remain confounding to me. I recall my own comprehensive exam as extremely intimidating – to have my assumed "understanding" of the body of literature/knowledge that would "inform" and/or "substantiate" my community's need of language revitalization was largely from an external, western knowledge base; the Indigenous scholarship was barely emerging. As much of the literature as I was introduced to and consumed, I found it challenging to internalize much that would help me demonstrate my comprehensive knowledge base. I struggled to "argue," or speak coherently on the body of knowledge; this was a profoundly humbling experience. This humbling experience continues to play a significant role in my mentorship. The "root," or "honngaapi" as it is called by the Hopi people, is one that I keep on hand as a form of "protection" as my mother explained it – protection of our intellectual, emotional, physical and spiritual energy – as a shield from and against hurtful energies that surround us. If one believes, one stands empowered in mind, body, heart, and spirit.

Historically, institutional conventions in higher education have conveyed in both implicit and explicit ways that Indigenous peoples, thus Indigenous students are not capable of knowledge production – Indigenous knowledges and perspectives remain invalidated and contested. Such messages are detrimental to the cultural integrity of Indigenous peoples, communities and for

Indigenous students, "plant seeds of self-doubt that are difficult to shake" (Wright et al., 2019, p. 11).

Our interactions around mandatory exams for doctoral students, including the comprehensive exam, reflect ways we navigated institutional conventions from a strong belief in one another manifest in advocacy and protection. The doctoral exam process reflects "the dominant epistemological position of the university" and exposes "conflicting cultural values in the production of knowledge for Indigenous doctoral students" (Harrison et al., 2017, p. 117). The discourse of "comprehensive" exam is not holistic. It separates life and work experience from the intellectual and dismisses the situated knowledge of Indigenous students (Harrison et al., 2017). In addition, to couple it with the term "exam" positions the learner against abstract standardization – whose knowledge is valued and considered as comprehensive. Similar tensions surround the dissertation "defense" – what are we defending and against whom? Through our Indigenous mentor-mentee relationship, we claimed the space around this required doctoral exam and reframed it within our cultural contexts. Key to this claiming of space was the gift of a root, a protective medicine – a *remedy* (Kuokkanen, 2007).

The gift paradigm is not recognized or understood within the oppressive institutional conventions of the academy.

> KARI: As a doctoral student, I felt compelled at particular moments of transition in my program – such as the comprehensive exam – to give gifts to my mentors who guided me. A practice that I began while doing research in my community as a master's student was to gift my beadwork to those I worked with as "a natural gesture of reciprocity for the gifts of time and sharing knowledge and experience" (Chew & Hinson, forthcoming). When I beaded, I thought "about each person and the good work they

> were doing for our language [so that] they would also have a piece of my heart entrusted to them" (Chew & Hinson, forthcoming). Because I understood the mentorship I received as a gift, I wanted to reciprocate by offering my own gift from the heart. I beaded a pen for each of my committee members and presented it to them following my comprehensive exam. While this practice was culturally-grounded, it was not understood or always welcomed in the university. As a graduate student, the message I received from the university was that it was not appropriate to give or accept gifts within hierarchical relationships, as these gifts could be construed as bribery. It was difficult to navigate gifting as cultural integrity and gifting within the ethical framework imposed by the university.

This moment offers a glimpse into the dynamic process of *conscientization,* or consciousness-raising (Smith, 2003), assumed over and in the course of establishing an enduring and reciprocal mentor-advisee relationship stemming from Indigenous ways of knowing, being and doing. *Community* needs, aspirations, and preferences are privileged, and "our own ways" are positioned as critically relevant and significant in the academy. We affirm the need to "revitaliz[e] the mentoring and learning-teaching relationships that foster real and meaningful human development and community solidarity" (Alfred, 2009, p. 56). In this way, Indigenous mentorship is not a top-down hierarchy, but a long-term relationship nurtured and sustained by both the mentor and the mentee.

As Sami scholar, Rauna Kuokkanen (2007) describes, "a central principle of Indigenous philosophies, [is] that of 'giving back'" (p. 44). While Kuokkanen describes "giving back" in terms of sharing the benefits of research with and for Indigenous communities, in Kari's case, the gift and gifting of her beadwork to each member of her committee encapsulated a formal

acknowledgment of the enduring and reciprocal relationships garnered with and within the scholarly community of mentors. The gifting of the beaded pen was a "heartfelt" gesture of reciprocal gratitude for "tending to" the potential she brought into the higher education spaces; holding fast to that potential becomes the greatest asset for doing the important work in the transition from graduate studies to career (Wright et al., 2019). Kuokkanen rightly asks, "how can we convince the academy to sincerely accept the gift of [I]ndigenous epistemes?" (p. 44).

EPILOGUE

KARI: It has been four years since my graduation. I am now beginning my first year as a faculty member at the University of Oklahoma, an institution situated near the Chickasaw Nation. Along my way, I have continually returned to your words to remind myself that my integrity as a Chikashsha woman and scholar is my strength, and it is not bound to any academic institution. While the path forward is always difficult, it is less so because of those who have come before. The other day, I received a note from you in the mail with words in Hopi meaning, "Thank you, you accomplished tremendously on all our behalf." I felt emotional because it has been a struggle to get to the place where I feel that I'm supposed to be. I am thankful to you for your mentorship. As we say in this article, the graduation ceremony was a culmination – of a mentorship relationship focused on arriving on that graduation stage – and a beginning – of a collegial relationship characterized by ongoing guidance and support. I am also thankful to the many others who are not named in this article but have advocated for me along the way. The chair of my new department recently posed the question to new faculty, "Who do you want to be as a mentor?" I will hold onto your words. I plan to hang the shawl in my new office so that I can share this

story with students. I also want to have it as a present reminder of this happy moment and the responsibilities that I am now taking on as I transition into a new role as a mentor.

SHEILAH: Nukwang Talongva, Kari. First, I want to begin by expressing that I am deeply humbled by your story primarily because I have and often still feel sorely inadequate in mentoring students for such important work centered in community yet undertaken in entrenched institutional ideologies and conventions. But, it is a struggle I embrace with heart and soul, to persist and take a stand against continued colonization and internal colonization as an Indigenous woman because I am embracing a critical consciousness of how Indigenous women have been at the forefront and continue to stand up for their children and people. Just writing this is empowering.

As an Indigenous faculty in higher education spaces, I have assumed various academic roles along Kari's graduate school trajectory: academic advisor, course instructor, comprehensive and dissertation chair, grant supervisor and subsequently, colleague. However, this opportunity to *mentor,* "guide" an emerging Indigenous scholar along this continuum has manifested in more than roles but guidance through various "rites of passage" that has cultivated an enduring and reciprocal relationship, one in which I am positioned into a role that I liken to the Hopi concept of a "ceremonial mother" wimyu'at*,* or godmother, who assumes the role of mentorship and induction into a ceremonial domain.

In the Hopi context, a ceremonial mother has been observed to have knowledge, skills, and characteristics that a family desires for their child and thus approaches the individual with a request to share her knowledge, skills and cultivate similar attributes in their child. Essentially, the potential godmother is gifted with a child to whom she pledges a lifelong commitment of support in developing their talents and potential in ceremonial domains. In a reciprocal fashion, as a

mentor, I have watched and observed Kari and found that she is guided by a deep commitment to her community, taken this sense of "giving back" to heart, and in times of uncertainty sought assistance, listened and followed with acting on guidance given.

In every way, Kari has demonstrated a confidence to do not only important work for her community but to also assume and carry on the role of mentor in new academic spaces. Also, in a reciprocal fashion, this mentorship opportunity has led to a critical consciousness about the evolution of a mentorship paradigm that resurfaces and privileges the logic of the gift paradigm and is informed by an Indigenous episteme. More importantly, I borrow from Cochiti Pueblo scholar, Michelle Suina (2017), to articulate this experience as *coming to know,* "utilizing myself as a starting point of change [that] makes the most sense on my journey" (p. 86) in continuing to establish a scholarly community that welcomes and anticipates the role of cultivating and nurturing the potential of each and every student who comes into higher education. This has been the "medicine."

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Turtle Island (North America) Indigenous Higher Education Institutions and Environmental Sustainability Education

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ABSTRACT

This article explores the environmental and sustainability programs of Indigenous Higher Education Institutions (IHEIs) in North America. There are 38 Tribal Colleges and Universities in the United States and 26 Indigenous post-secondary institutions in Canada. Deploying a critical discourse analysis, the study examines IHEI websites to document Indigenous environmental sustainability education (ESE) program offerings. The comparative analysis of IHEI programming in each national context finds that 41 out of 62 IHEIs in Canada and the United States have Indigenous ESE programs. Findings also indicate that ESE programs are more prevalent among IHEIs in the United States than in Canada. Moreover, IHEIs in the United States also offered greater diversity of program types, from certificates to graduate studies. The findings highlight the importance of IHEI environmental and sustainability education program design for centering

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Indigenous Knowledge in higher education through Indigenous-controlled institutions.

Keywords: Indigenous higher education, Indigenous Peoples, environmental education, North America, comparative discourse analysis

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INTRODUCTION

Across Turtle Island (North America) there are more than 1,208 Indigenous Nations with historic and cultural connections to the land or territories on which they live (AFN, 2021; BIA, 2021). Indigenous Peoples are on the frontlines of climate change. The international community has increasingly recognized the importance of Indigenous Knowledge toward improving environmental sustainability. For instance, Assessment Report AR5 of the Intergovernmental Panel on Climate Change has identified Indigenous and traditional knowledge as "a major resource for adapting to climate change" and highlighted the need for "[i]ntegrating such forms of knowledge with existing practices [to increase] the effectiveness of adaptation" (IPCC, 2014, p. 19). Now more than ever before, Western scientists are turning to Indigenous Knowledge and science to gain valuable insights into the world's most pressing environmental concerns. However, this urgency for Indigenous Knowledge and science for environmental management and governance has highlighted the need to better understand the landscape of Indigenous environmental and sustainability education programs across Turtle Island. Indigenous Higher Education Institutions (IHEIs) in Canada and the U.S. share a commitment to centering Indigenous Knowledge and promoting the advancement of students and communities through Indigenous-controlled institutions (Warrior, 2012). The comparative and complementary approach undertaken in the proceeding analysis of existing IHEIs programs in the U.S. and Canada highlights the interconnected histories of Indigenous Peoples of Turtle Island and the synergies of Indigenous

institutional development for advancing Indigenous Knowledge for environmental and sustainability education.

The epicenter of Indigenous Knowledge is Indigenous communities. To better understand the mobilization of Indigenous Knowledge for addressing environment and sustainability challenges, we need to explore programmatic innovations designed and implemented by IHEIs. To date, there are limited comparative studies of Indigenous post-secondary education in the U.S. and Canada (Warrior, 2012; Jenkins, 2007); and fewer that examine environmental and sustainability education of IHEIs (Dockry et al., 2016). This paper fills that gap by providing a comparative analysis of the Indigenous environmental sustainability education strategies of IHEIs located in what is currently referred to as Canada and the United States. The paper identifies pathways needed for IHEIs to continue their work advancing Indigenous environmental and sustainability education grounded in Indigenous Knowledge.

The article's primary goal is to explore the conceptualization of environmental sustainability education by IHEIs, through analyzing institutional websites. Additionally, the research documents the status of environmental sustainability education across IHEIs in Canada and the United States by providing background on the emergence of Indigenous environmental sustainability education programs. The subsequent section explains the methodological approach used to select and analyze IHEI websites. Theoretical framing was guided by the College of Menominee Nation Sustainable Development Institute (SDI) Model, which describes seven dimensions of Indigenous sustainability A description of the findings follows, identifying the types of degree programs offered and mapping the program descriptions across the seven SDI Model dimensions.

LITERATURE REVIEW

Indigenous Environmental Sustainability Education

Indigenous Peoples have unique knowledge systems and languages that guide our relationships with all living things. These ways of being function as systems of sustainability that have been passed on to present generations by our ancestors and have helped Indigenous Peoples thrive in times of peace and persist through times of peril. Indigenous Environmental Sustainability Education is defined as fostering a learning environment in which students and faculty can develop and grow a deep understanding of how Indigenous values, philosophies, and practices can: (1) guide and support individual and community growth; (2) encourage sustainable practices in all aspects of community life; and (3) promote environmental protection guided by Traditional Ecological Knowledge (TEK) and Indigenous Science. As Peach et al. (2020) highlight Indigenous Knowledge cannot be separated from the land, and thereby, the unique position of IHEIs as place-based institutions supports their efficacy and effectiveness in environmental and sustainability education. As Sumida Huaman et al. (2019) point out, IHEIs are "distinct from mainstream institutions as they are the only institutions of higher education situated on Indigenous lands, within the tribal community, where severely threatened knowledge systems and languages are core learning material and given primary space" (p.10). Limited research has explored the ways in which IHEIs are uniquely positioned to address pressing environmental and sustainability education gaps in higher education.

Education for Sustainable Development (ESD) is an emerging area of education that responds to calls for sustainability education in higher education. ESD is the development of knowledge, skills, and values for students to be "global citizens" who will protect the environment and society today for future generations (Fredriksson et al., 2020, p.1; Hernandez et al., 2018).

Although there has been minimal research on the implementation of education for sustainable development among Indigenous Higher Education Institutions (IHEIs) of Turtle Island, there is a stark difference between ESD and Indigenous environmental sustainability education (ESE) in large part due to different understandings of sustainability among Indigenous and western knowledge systems. This paper aims to document the manifestation of ESE programs at IHEIs across Turtle Island. In doing so this paper employs definitions of Indigenous sustainability for mapping program innovations.

Sustainability within Indigenous Knowledge Systems centers on maintaining balance (Dockry et al., 2016). As Dockry et al. (2016), quoting Dr. Verna Fowler, founding President of the College of Menominee Nation, underscore the Indigenous values "At the core [of sustainability] are respect for the land, water, and air; partnership with other creatures of earth; and a way of living and working that achieves a balance between use and replenishment of all resources" (p. 129). In this way, sustainability recognizes not only the protection of human future generations but future generations of all life on the planet, including our non-human relations (Whyte, Caldwell, and Schaeffer, 2018). Expanding on this conceptualization, Crazy Bull and White Hat (2019) provide the following Indigenous definition for sustainability:

> Embedded in Indigenous understandings of the world is the recognition that sustainability requires an acceptance of the ways in which diverse ecological and human systems interact to ensure persistent survival. Sustainability means that we must explore ways of living that reduce harmful practices; our aim being to eliminate the destruction of resources and relationships. As Indigenous people, we are reminded through everyday acts of the necessity of sustainable practices. (p. 119)

This is in stark contrast to western definitions of sustainability that generally build from the sustainable development definition captured by the World Commission on Environment and Development (1987), which describes it as "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs" (Brundtland et al., 1987, p. 43). Sustainability within western environmental education is largely anthropocentric and often measured by environmental, societal, and economic safeguarding for future generations. In addition to variations in approaches to sustainability Indigenous educational sovereignty has also been constrained due to colonialism and assimilation policies.

Colonial systems of educational oppression and assimilation bind Indigenous Nations within what is currently known as the United States and Canada. As Jenkins (2007) notes, this shared struggle accounts for the complementary development of Indigenous post-secondary institutions across Turtle Island in the past 50 years. Indigenous post-secondary institutions are performatives of sovereignty and beacons of self-determination in action. As Cole (2011) states, "Equal access to and participation in mainstream educational institutions is a human right, whereas control of separate institutions is a sovereign right" (p. 4). IHEIs support the protection of Indigenous Knowledge Systems and the decolonization of colonial education systems through community capacity building. Indigenous control of all levels of education is paramount for exercising sovereignty and protecting Indigenous rights. In what is currently known as Canada and the United States, over 60 Indigenous Higher Education Institutions (IHEIs) align education strategies with the Indigenous knowledge systems of the communities they serve.

Simpson (2002) identified core reasoning behind why many Indigenous communities and IHEIs are championing the creation of environmental and sustainability education programs,

> Founding Indigenous Environmental Education programs within Indigenous Knowledge systems is one of the most important ways of strengthening our cultures, promoting environmental protection, realizing sustainable local economies, and supporting students through healing and decolonizing processes. It requires the participation and leadership of the Elders in all aspects of the program, access to the land, the application of Indigenous education models and philosophies of education, the employment of Indigenous teaching and learning mechanisms, and a constant decolonization process for both instructors and students. (pp. 16-17)

In creating environmental and sustainability education programs at Indigenous-controlled institutions, Indigenous Peoples are building capacity for Indigenous survivance and prioritizing the safeguarding of Indigenous Knowledge not only to meet current needs but to ensure its continued intergenerational transmission.

Indigenous Higher Education Institutions (Canada)

Indigenous Higher Education Institutions (IHEIs) developed in Canada alongside movements for self-determination after the emergence of the 1969 White Paper, which advocated for the termination of Indigenous rights. In response to the White Paper, the Indian Chiefs of Alberta, on behalf of First Nations, published the Red Paper in 1970 outlining the comprehensive protection of Indigenous rights and Indigenous involvement in all policy-making that would affect Indigenous Peoples within Canada (Jenkins, 2007). Education policy was a tool to advance the principles of the Red Paper. In 1971, Blue Quills First Nation College was founded, now known as University Nuhelot'įne Thaiyots'į Nistameyimâkanak Blue Quills. The following year the National Indian Brotherhood, now known as the Assembly of First Nations, published the policy paper "Indian Control of Indian Education" (1972) (Jenkins, 2007; AFN, 1972). The policy paper

included a statement on the Indian Education Philosophy of which one of the values is: “Living in harmony with nature will ensure the preservation of the balance between man and his environment which is necessary for the future of our planet, as well as for fostering the climate in which Indian Wisdom has always flourished” (AFN, 1972, p. 1). As highlighted in the 1972 paper, environmental education for planetary protection has been at the heart of Indigenous education revitalization efforts since the beginning. Shortly thereafter in 1976, Saskatchewan Indian Federated College, known today as the First Nations University of Canada (FNUniv), was founded (Cole, 2011). Today, FNUniv offers the most Indigenous environmental and sustainability programs for post-secondary students of all IHEIs in Canada. It is clear from this groundbreaking founding that the contemporary integration of Indigenous Knowledge and educational philosophy among IHEIs is primarily due to the Indigenous logic of institutional design.

Nine of the twenty-six IHEIs in Canada are located within Ontario and recognized in 2017 through the Indigenous Institutes Act. Within the Act, Indigenous Institutes “are Indigenous governed and operated institutions that provide opportunities for students to start and complete post-secondary education credentials in a flexible, personalized and culturally responsive learning environment” (Government of Ontario, 2017). Notably, the provincial government recognized Indigenous Peoples' right to education protected under the United Nations Declaration on the Rights of Indigenous Peoples. Since the passage of the Indigenous Institutes Act (2017) in Ontario there is increased interest for more Indigenous-controlled universities throughout Canada. However, many IHEIs are still citing the absence of options for accreditation in other parts of Canada as a significant barrier to progress (Hallmark and Reed, 2016). Although not an Indigenous-controlled institution, it is essential to highlight that within Canada, Trent University was the first post-secondary institution to develop an undergraduate degree program (B.A./B.Sc.)

in Indigenous Environmental Studies/Science (Simpson, 2002). The university accomplished this in consultation with Indigenous students, faculty, and Indigenous community leaders, and it remains one of the leading environmental and sustainability education programs in Canada.

Indigenous Higher Education Institutions (United States)

Similarly, to Canada, Indigenous sovereignty and self-determination movements in the second half of the 20th century, in response to colonial termination policies, led to the creation of many U.S. Indigenous Higher Education Institutions (Jenkins, 2007; Crazy Bull and White Hat, 2019). As Tribal Nations advocated for the protection of sovereignty through the American Indian Movement, Tribal Colleges and Universities (TCUs) emerged to allow Tribal Nations to control the post-secondary education of their tribal citizenry (Crazy Bull and White Hat, 2019). In 1968 the Navajo Community College, now known as Diné College, was founded by the Navajo Nation and became the first TCU in the United States (Sumida Huaman et al., 2019). It was formally recognized and provided grants alongside other U.S. community colleges in 1971 with the passage of the Navajo Community College Act (Jenkins, 2007). Following the success of Diné College, the Tribally Controlled Community College Assistance Act of 1978 was subsequently passed and supported Tribal Nations in developing their own higher education institutions (Sumida Huaman et al., 2019). There was a model for these institutional developments in the U.S. given the prevalence of Minority Serving Institutions (MSIs), including Historically Black Colleges and Universities. Jenkins (2007) argues that existing MSIs allowed for less political resistance to the formation of Indigenous HEIs in the U.S. than in Canada because there was a template for legislative recognition and autonomy. In 1994 the Equity in Educational Land-Grant Status Act designated all TCUs as land grant institutions, providing greater access to resources and funding supports (Crazy Bull and White Hat, 2019). The 1990s were a formative period for Indigenous

education reclamation following the quincentennial of the invasion and colonization of Turtle Island. As IHEIs began to reimagine their futures new models of Indigenous environmental and sustainability education philosophy emerged.

THEORETICAL CONSTRUCT

This study was theoretically guided by the College of Menominee Nation Sustainable Development Institute Model or SDI Model (Dockry et al., 2016). The College of Menominee Nation was founded in 1993, and one of its first initiatives was the establishment of the Sustainable Development Institute charged with the protection of the Menominee forest through education and economic development. In creating the institute, the college went through a process of conceptualization of what sustainability means to them, carving out a paradigm centered within Menominee knowledge systems and responsive to the past, present, and future needs of the nation (Caldwell, 2019). Through an evolving and living process, the SDI Model emerged highlighting seven interconnected dimensions: "(1) land and sovereignty; (2) natural environment (which includes human beings); (3) institutions; (4) technology; (5) economics; (6) human perception, activity, and behavior and (7) cultural values" (Dockry et al., 2016, p. 129). Dockry et al. (2016) champion the use of the SDI Model by researchers and educators to "create a complex narrative to understand the past and present and create visions and solutions for the future" (p. 135). As such, the SDI Model provides the theoretical lens through which the comparative and critical discourse analysis of this study is grounded.

The research considers how existing Indigenous Higher Education Institutions (IHEIs) across Canada and the United States include the listed SDI Model dimensions in their environment and sustainability education program offerings. This lens allows for reflection on how sustainability, as defined by an IHEI, is implemented by other IHEIs in different settler-colonial

contexts. In many ways, Indigenous Peoples' knowledge systems have been erased from western environmental education replaced by stereotypical notions of the “Ecological Indian.” Cherokee scholar Jeff Corntassel (2020) notes that the “attempted erasure of Indigenous peoples, communities, plants and other relationships from homelands and waterways is a central facet of settler colonialism” (p. 353). Recent reconciliation efforts in education recognize the erasure of Indigenous Peoples from western education models and now are attempting to remedy past assimilationist policies by integrating Indigenous Knowledge into higher education. However, Simpson (2014) and Ahenakew (2017) note that the attempt to incorporate Indigenous Knowledge and Indigenize western educational institutions is a further act of settler colonialism that oppresses Indigenous innovation and autonomy. Cajete (2015) argues that contemporary Indigenous education must revitalize, reclaim, and prioritize Indigenous ways of knowing for future sustainability.

Similarly, Corntassel (2020) calls for a process of “restoryiing” whereby Indigenous researchers focus on acts of resurgence and Indigenous excellence. This article considers the existing activities of IHEIs to build educational systems reflective of imaginative sustainable Indigenous futures. This theoretical framing combined with the methodology outlined below presents an Indigenist research approach that centers the experiences of Indigenous Higher Education Institutions and their operationalization of Indigenous environmental sustainability education programs across Turtle Island (Hart et al., 2017; Wilson, 2007).

RESEARCH METHOD

The article seeks to document how Indigenous Higher Education Institutions (IHEIs) describe their environmental sustainability education (ESE) programs and curricula through their websites. A qualitative document analysis was undertaken where data was collected from 62

websites of IHEIs across Canada and the United States. Previous studies have examined higher education institutions' websites using content analysis (Lažetić, 2020; Davis et al., 2019; Saichaie and Morphew, 2014). However, to date, there have been no qualitative studies of websites of Indigenous Higher Education Institutions. As such, this research is a novel contribution to an emerging area of comparative education studies.

Critical discourse analysis (CDA) and content analysis were used to evaluate IHEIs websites (Fairclough, 1993). CDA recognizes unequal relationships and attempts to explain and understand differences. As Wilson and Carlsen (2016) note, "CDA understands a text as a description of something occurring within a wider cultural context that is interpreted and acted upon by social actors within a field of rules and norms" (p. 29). Lowan-Trudeau (2020) used CDA to analyze differences in media coverage of Indigenous environmental action across Canada and the United States. CDA is a tool to understand better how IHEIs describe their environmental and sustainability education programming and discuss themes as emergent in text.

Data was collected from web pages of IHEIs describing the academic majors and or programs of study (Wilson and Carlsen, 2016; Saichaie and Morphew, 2014). Websites are "documents" for qualitative analysis (Wilson and Carlsen, 2016). Data collection occurred between August 2020 and March 2021. As Saichaie and Morphew (2014) underscore, this timeframe for data collection is ideal as it parallels the timeline during which prospective and newly admitted students would be visiting the IHEI's website to explore study options. It should be noted that this research is a snapshot in time and IHEI programming and curriculum are not static. The study findings may be limited by the publicly accessible websites of IHEIs and may not account for the digital divide or resource constraints that may limit IHEIs ability to develop and maintain robust websites.

In the first phase of analysis, websites were read and coded using an open-coding process documenting environmental sustainability education through codes such as “environment” or “sustainability” or “natural resources”. The subsequent phase transitioned to interpretation, an axial coding process, allowing for recoding the websites into analytic categories framed by the College of the Menominee Nation Sustainable Development Model. For example, “land” is connected to the analytic category of “sovereignty”. See Table 1 for categories and example data.

Table 1

Sample Analytic Categories and Text of the Sustainability Development Institute Model

SDI Model Category	Example	Text
Land and sovereignty	Sovereignty; control over land and territory; self-determination; self-governance; law; justice; decision-making authority; etc.	“The program will prepare graduates to work within tribal communities in support of environmental stewardship, conservation, and revitalization” (Northwest Indian College).
Natural environment	People, human communities, plants, animals, rocks, water, and air; interconnected; relationality; etc.	“Students participate in hands-on laboratory and field experiences to learn about topics including but not limited to; cellular biology, animal physiology, oxygen depletion in water, bird diversity, rangeland management and animal and plant genetics” (Haskell Indian Nations University).
Institutions	Clan system, First Nation, Tribal government, Tribal college, etc.	“This unique degree is being designed to equip students with the knowledge and skills needed to

		contribute to food sovereignty, community growth, economic development and ecological restoration at First Nations, Métis and Inuit communities across Canada" (First Nations Technical Institute).
Technology	Community access to telecommunications; cultural tools and practices; GIS; tools; etc,	"Smipúlexwtn is the Salish word for GIS and translates to "an instrument used on the land." GIS technology is new and evolving, yet it is traditional in spirit and thousands of years old. For example, searching for a campsite requires knowledge of many aspects of the landscape and an analytical mind—basically a geographic information system" (Salish Kootenai College).
Economy	Across scales (local to global); subsistence harvesting; food sovereignty; commercial activity; entrepreneurship; etc.	"Students will expand their knowledge and hone their skills in sustainable farm principles and practices by participating in year-around internships in the campus greenhouse and gardens or local agricultural business" (United Tribes Technical College).
Human perception, activity, and behavior	Individual perceptions, activities, and behaviors to local/community	"Learning from academic, industry, and community experts as well as Indigenous Elders, students will learn how renewable energy

	understandings, values, and collective pursuits; etc.	technology and Traditional Ecological Knowledge (TEK) are vital in balancing traditional values and the needs of industry and communities in the development of green energy" (Yellowhead Tribal College)
Cultural Values (profound sense of place/tie to the land)	Cultural beliefs and practices; autochthony; indigeneity; elders; connection to land; oral tradition; traditional knowledge; etc.	"All students enrolled in these programs are required to take specific courses that incorporate traditional Lakota concepts concerning language, land, plants and animals" (Oglala Lakota College).

A comparative website analysis was further deployed to understand the thematic differences across ESE program areas of IHEIs (Lažetić, 2020). Tables 2 and 3 document the IHEIs reviewed in this study. Notably, some IHEIs (n=2) were not included in this study as they did not have a website or lacked publicly available information on their degree programming.

RESULTS

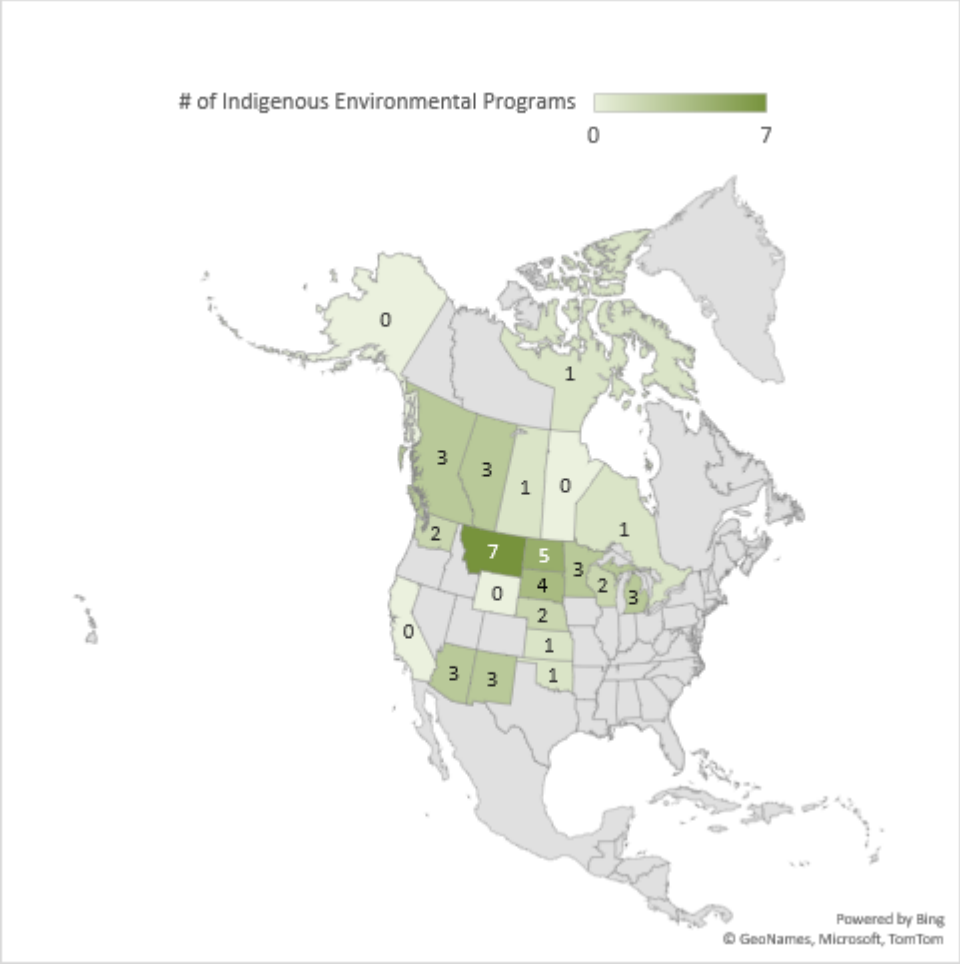
Indigenous Institutional Responses to Environment and Sustainability

Figure 1 and Tables 2 through 4 offer descriptive results of the Indigenous Higher Education Institutions (IHEIs) that have developed Indigenous environmental sustainability education (ESE) programs across Turtle Island. The comparative analysis of Indigenous ESE programming in each national context found that 41 out of 62 IHEIs in Canada and the United States have ESE degree programs. Several discursive themes emerged in the analysis that aligned with Sustainable Development Institute Model (SDI Model): natural environment, technology, cultural values, and institutions. Less prevalent thematic areas included: land and sovereignty;

economy; and human perception, activity, and behavior. Notably, these diminished discursive dimensions are also highly contested by the settler-colonial state that views Indigenous sovereignty and economic self-determination as a threat to settler-colonial territorial integrity.

Figure 1

Indigenous Higher Education Institution Environmental Programs Across Turtle Island (Canada/United States)



Note. 0 = Presence of IHEIs but no ESE programs. Areas in gray at time of publication lack accredited IHEIs.

Indigenous Higher Education Institutions (Canada)

There are 26 Indigenous Higher Education Institutions across what is currently known as Canada (See Table 2). In contrast to the growth of IHEIs in Ontario, there is an absence of degree granting IHEIs in eastern Canada as defined in this study, although there are Indigenous post-secondary support programs in the region. Canadian IHEIs highlighted in this study include a range of institutions such as universities, colleges, institutes, and training and knowledge centers. There is a greater diversity of institutional design among IHEIs in Canada than among U.S. TCUs (Cole, 2011).

Table 2

Summary of Indigenous HEIs website data with Environmental and Sustainability Science programs in Canada

Indigenous HEI	Country	State/ Province	Environmental Program	Degree/ Certificate
Chemainus Native College	Canada	British Columbia	No data	No data
Heiltsuk College	Canada	British Columbia	No data	No data
Wilp Wilxo'oskwhl Nisga'a Institute	Canada	British Columbia	None	N/A
Gitksan Wet'suwet'en Education Society	Canada	British Columbia	Yes	Certificate
Native Education College	Canada	British Columbia	Yes	Certificate
Nicola Valley Institute of Technology	Canada	British Columbia	Yes	Diploma; Certificate
Seabird College	Canada	British Columbia	None	N/A
Maskwacis Cultural College	Canada	Alberta	None	N/A

Old Sun Community College	Canada	Alberta	Yes	Transfer Credit
Red Crow Community College	Canada	Alberta	Yes	Certificate
University nuhelot'įne thaiyots'į nistameyimâkanak Blue Quills	Canada	Alberta	None	N/A
Yellowhead Tribal College	Canada	Alberta	Yes	Diploma; Certificate
The First Nations University of Canada	Canada	Saskatchewan	Yes	Bachelor of Science; Bachelor of Arts; Certificate
Saskatchewan Indian Institute of Technologies	Canada	Saskatchewan	None	N/A
Gabriel Dumont Institute Training and Employment Inc.	Canada	Saskatchewan	None	N/A
Anishinabek Education Institute	Canada	Ontario	None	N/A
First Nations Technical Institute (FNTI)	Canada	Ontario	Yes	Bachelor of Arts and Science
Kenjgewin Teg	Canada	Ontario	None	N/A

Iohahi:io Akwesasne Education and Training Institute	Canada	Ontario	None	N/A
Oshki-Pimache-O-Win: The Wenjack Education Institute	Canada	Ontario	None	N/A
Ogwehoweh Skills and Trades Training Centre	Canada	Ontario	None	N/A
Seven Generations Education Institute	Canada	Ontario	None	N/A
Shingwauk Kinoomaage Gamig	Canada	Ontario	None	N/A
Six Nations Polytechnic	Canada	Ontario	None	N/A
YellowQuill College	Canada	Manitoba	None	N/A
Nunavut Arctic College	Canada	Nunavut	Yes	Diploma

Indigenous Higher Education Institutions (IHEIs) in Canada have developed environmental and sustainability programs that center Indigenous stewardship and knowledge while balancing technical capacity for Indigenous community self-determination. More than a third of IHEIs in Canada offer an environmental program for their students resulting in either a Bachelor of Science, Bachelor of Art and Science, Diploma, Certificate, or Transfer Credits (See Table 2). Currently, no IHEI in Canada offers a graduate-level degree in environmental or sustainability program areas. The most common offering is a Certificate. First Nations University

of Canada (FNUniv) in Saskatchewan and First Nations Technical Institute (FNTI) in Ontario are currently the only IHEIs in Canada to offer Bachelor Degree Programs. FNUniv offers a Bachelor of Science and a Bachelor of Arts in Indigenous Knowledge and Science that blends Indigenous and western science and includes Elders as foundational to instruction. FNTI offers a Bachelor of Arts and Science in Indigenous Sustainable Food Systems that supports knowledge acquisition for food sovereignty and ecological restoration. In contrast there is greater diversity of program types, from certificates to graduate studies at IHEIs located within the United States.

Indigenous Higher Education Institutions (United States)

There are 38 Indigenous Higher Education Institutions, also known as Tribal Colleges and Universities (TCUs), across what is currently known as the United States (See Table 2). These TCUs are members of the American Indian Higher Education Consortium (AIHEC), which provides resources, support, and a forum for policy transfer and learning (Crazy Bull and White Hat, 2019). There is an absence of degree-granting IHEIs/TCUs in the eastern region of the United States.

Table 3

Summary of Indigenous HEIs website data with Environmental and Sustainability Science programs in the United States

Indigenous HEI	Country	State/ Province	Environmental Program	Degree/ Certificate
Aaniiih Nakoda College	USA	Montana	Yes	Bachelor of Science; Associate of Science
Bay Mills Community College	USA	Michigan	Yes	Associate of Science; Certificate

Blackfeet Community College	USA	Montana	Yes	Associate of Science; Certificate
California Tribal College	USA	California	None	N/A
Cankdeska Cikana Community College	USA	North Dakota	Yes	Associate of Science
Chief Dull Knife College	USA	Montana	Yes	Associate of Science (Concentration)
College of Menominee Nation	USA	Wisconsin	Yes	Associate of Arts and Science
College of the Muscogee Nation	USA	Oklahoma	Yes	Associate of Science
Diné College	USA	Arizona/New Mexico	Yes	Bachelor of Science; Associate of Science; Certificate
Fond Du Lac Tribal and Community College	USA	Minnesota	Yes	Associate of Applied Science; Associate of Science; Certificate
Fort Peck Community College	USA	Montana	Yes	Associate of Science

Haskell Indian Nations University	USA	Kansas	Yes	Bachelor of Science; Associate of Science;
Iḷisaġvik College	USA	Alaska	None	N/A
Institute of American Indian Arts	USA	New Mexico	None	N/A
Keweenaw Bay Ojibwa Community College	USA	Michigan	Yes	Associate of Science; Certificate
Lac Courte Oreilles Ojibwa Community College	USA	Wisconsin	Yes	Associate of Applied Science; Associate of Science;
Leech Lake Tribal College	USA	Minnesota	Yes	Associate of Science;
Little Big Horn College	USA	Montana	Yes	Associate of Science;
Little Priest Tribal College	USA	Nebraska	Yes	Associate of Arts
Navajo Technical University	USA	Arizona/New Mexico	Yes	Bachelor of Science; Associate of Applied Science; Certificate

Nebraska Indian Community College	USA	Nebraska	Yes	Associate of Science
Northwest Indian College	USA	Washington	Yes	Bachelor of Science
Nueta Hidatsa Sahnish College	USA	North Dakota	Yes	Bachelor of Science
Oglala Lakota College	USA	South Dakota	Yes	Bachelor of Science
Red Lake Nation College	USA	Minnesota	None	N/A
Saginaw Chippewa Tribal College	USA	Michigan	Yes	Associate of Science
Salish Kootenai College	USA	Montana/Washington	Yes	Bachelor of Science
San Carlos Apache College	USA	Arizona	None	N/A
Sinte Gleska University	USA	South Dakota	Yes	Bachelor of Science; Associate of Applied Science
Sisseton Wahpeton College	USA	South Dakota	Yes	Associate of Science

Sitting Bull College	USA	North Dakota/ South Dakota	Yes	Master of Science; Bachelor of Science
Southwestern Indian Polytechnic Institute	USA	New Mexico	Yes	Associate of Applied Science
Stone Child College	USA	Montana	Yes	Associate of Science
Tohono O'odham Community College	USA	Arizona	Yes	Associate of Arts; Associate of Science
Turtle Mountain Community College	USA	North Dakota	Yes	Associate of Science
United Tribes Technical College	USA	North Dakota	Yes	Bachelor of Science
White Earth Tribal and Community College	USA	Minnesota	Yes	Associate of Arts
Wind River Tribal College	USA	Wyoming	None	N/A

Tribal Colleges and Universities in the U.S. offer a wide range of environment and sustainability programs and course offerings grounded in Indigenous Knowledge Systems of the Indigenous Nations who mandated their creation and to whom they are accountable. More than 80% of TCUs

offer an environmental program for their students resulting in either a Master of Science Degree, Bachelor of Science Degree, Associate of Science Degree, or Certificate (See Table 4).

Table 4

Summary of Program Types offered by Indigenous HEIs across Canada and the United States

Program Type	IHEI – Canada (Number of Programs)	IHEI - United States (Number of Programs)
Transfer Credit	1	0
Certificate	6	6
Diploma	3	0
Associate of Applied Science	0	5
Associate of Science	0	20
Associate of Arts	0	3
Associate of Arts and Science	0	1
Bachelor of Arts and Science	1	0
Bachelor of Science	1	11
Bachelor of Arts	1	0
Master of Science	0	1

The most common degree program offered among TCUs for environmental programs is an Associate of Science; however, 11 TCUs offer Bachelor of Science Degrees in environmental and sustainability-related areas. The advancements in the environmental and sustainability curriculum at TCUs do not stop at undergraduate education. Sitting Bull College, located on the Standing Rock Sioux Reservation, created the first Indigenous graduate program in environmental studies offering a Master of Science in Environmental Science where students are expected to "demonstrate an understanding of Native Science as it relates to the Lakota/Dakota culture, while maintaining the balance with and the integrity of Western Science" (Sitting Bull College, 2019). The integration of Indigenous Science and Western Science in non-indigenous higher education institutions is discussed through decolonization and indigenization efforts at universities

throughout North America without large-scale meaningful results. However, IHEIs have already built a template for implementation that non-Indigenous institutions can learn from for broader success. Comparative analysis of ESE program types among Indigenous Higher Education Institutions (IHEIs) in the U.S. and Canadian contexts highlighted limited bachelor degree program options at Canadian IHEIs and only one graduate ESE degree-granting program across all IHEIs on Turtle Island (See Table 4). The second question guiding this study was what SDI Model categories appeared on IHEI websites. The following section discusses the seven dimensions and the frequency at which they appear with attention to cross-national variances.

DISCUSSION

Indigenous Environmental Sustainability Programs in IHEIs

The 62 websites of Indigenous Higher Education Institutions varied widely but reveal distinct patterns in program offerings across their divergent settler colonial contexts of Canada and the United States (See Table 5).

Table 5

Summary of SDI Model category frequency across IHEI websites by country

SDI Model Category	United States	Canada
Land and sovereignty	8.1%	3.0%
Natural environment	53.5%	12.1%
Institutions	9.3%	15.2%
Technology	54.7%	27.3%
Economy	10.5%	6.1%
Human perception, activity, and behavior	1.2%	3.0%
Cultural Values (profound sense of place/tie to the land)	27.9%	30.3%

N=Documents (Websites)	*N = 38*	*N = 24*

Land and sovereignty

Land and sovereignty are essential to the political integrity of Indigenous nations across Turtle Island. According to Dockry et al. (2016), "the land and sovereignty dimension is concerned with how decisions are made for their land and community" (p. 129) as such land and sovereignty are vital areas for inclusion in environmental sustainability education programs at IHEIs within Canada and United States. Wildcat et al. (2014) underscore the importance of land-based education for upholding Indigenous sovereignty in the face of settler colonialism and continued attempts to displace Indigenous Peoples from the land. Notably, the study findings show that in comparison to Canada, IHEIs within the United States had more programmatic references to land and sovereignty, including control over land and territory, self-determination, self-governance, law, justice, and decision-making authority. IHEIs within the United States included courses in their ESE programs that emphasized Tribal law, policy, and governance.

On the other hand, IHEI programs in Canada included more references to stewardship of the land. Indigenous legal scholars John Burrows and Aimée Craft note that Indigenous law is centered on relationships and responsibilities rather than solely a rights-based framework (Borrows, 2016; Craft, 2015). The discursive differences in references to land and sovereignty across IHEIs may relate to the varying settler-colonial legal systems Indigenous Nations have to navigate across Canada and the United States as they work to reconstitute Indigenous legal orders outside of the colonial rights-based framework.

Natural environment

The most prominent category under the dimension of natural environment across IHEIs within the United States was that of *wildlife*, accounting for 40% of the website references in this

theme. Among the concentration of IHEIs in the Great Lakes region of the United States, environment and sustainability programs focused on forestry, fisheries, manoomin (wild rice), and wildlife science. In contrast, the most salient categories across IHEIs within Canada include *soil* and *fish*, accounting for 30% of the website discourse in this theme. According to the SDI Model, the natural environment dimension is broadly "interpreted to go beyond natural resources to include examples such as people, human communities, plants, animals, rocks, water, and air" but may "also incorporate western ecological science perspectives" (Dockry et al., 2016, p. 130). Additional salient categories across all IHEIs in this theme included: *forests*, *plants*, and *water*. Moreover, *hydrology* and *biology* were also referenced most frequently across physical science program offerings at IHEIs. Notably, Yellowhead Tribal College was the only IHEI to offer coursework on air quality monitoring. Additionally, Little Priest Tribal College is the only IHEI to have a degree program offering an Associate of Science degree in Indigenous Science. In recent decades Indigenous scholars have identified the need for greater inclusion of Indigenous science in education to address pressing environmental concerns (Cajete, 1999; Cajete and Bear, 2000; Cajete, 2008; Brayboy and Castagno, 2008; Whyte et al., 2016). Whyte et al. (2016) define Indigenous science broadly as:

> [T]he idea that Indigenous peoples have their own systems of knowledge for observing, collecting, categorizing, recording, using, disseminating and revising information and concepts that explain how the world works; they use their own knowledge systems to ensure the flourishing of their communities' health, livelihood, vibrancy and self-determination. The historic origins of Indigenous sciences are unique to each Indigenous peoples and differ from the dominant scientific disciplines found in countries such as the US… (p. 25)

IHEIs are responsible for shaping the future of environmental sustainability education for Indigenous nations. The inclusion of Indigenous science in program offerings recognizes that ESE is broader than natural resources and should include diverse knowledge systems, traditional ecological knowledge, and ways of embracing the natural world as kin rather than resource commodification.

Institutions

"Institutions" was a less salient category than other areas of the SDI model across IHEIs. This dimension included website references to governance, clan system, Tribal government, First Nation, etc. According to the SDI model, "Institutions refers to structures that develop and enforce rules of behavior and social interactions (which can include interactions among humans, plants and animals, and the environment)" (Dockry et al., 2016, p. 130). For example, First Nations Technical Institute (FNTI) created a new Bachelor of Arts and Science in Indigenous Sustainable Food Systems and grounded the program in "experiential learning on the land with teachings that revolve around the traditional Haudenosaunee food systems cycle" (FNTI, 2021). FNTI is centering Haudenosaunee rules of behavior and interaction with the intent to allow for students of the program "to contribute to food sovereignty, community growth, economic development and ecological restoration at First Nations, Métis and Inuit communities across Canada" (FNTI, 2021). As Haudenosaunee scholar Theresa McCarthy (2010), argues this process of re-storying is needed to support traditional Haudenosaunee identity, citizenship, and nationhood for future generations. Ransom and Ettenger (2001) recommend that institutions should reflect Indigenous "models of problem solving, such as consensus-based forums" and in particular, Haudenosaunee institutions should "reflect traditional ideals and values, including such concepts as peace, harmony, and mutual respect" (p. 221). References to institutions may have been less explicit on IHEIs websites

as their very existence as Indigenous institutions founded within Indigenous territories by Indigenous governments requires no other mention or reflection on their purpose of institutional design.

Technology

Technology was the most prevalent dimension across IHEI websites within the United States. Moreover, it was the second most salient category across IHEI websites within Canada after cultural values. This dimension included references to technology, geospatial information systems (GIS), tools, and Indigenous TEK (pronounced "tech") – recognizing the inherent value of cultural tools and practices built over millennia. The SDI Model defines technology as "rural community access to modern advances in telecommunications" and "cultural tools and practices" (Dockry et al. 2016, p. 130). The dimension embraces Indigenous ingenuity from canoe-making to contemporary mapping using GIS. Salish and Kootenai College offers a Certificate in Geospatial Science, and the description of the program on the website states:

> Smipúlexwtn is the Salish word for GIS and translates to "an instrument used on the land." GIS technology is new and evolving, yet it is traditional in spirit and thousands of years old. For example, searching for a campsite requires knowledge of many aspects of the landscape and an analytical mind—basically a geographic information system. (Salish Kootenai College, 2021)

Indigenous Peoples have always been cartographers (Rose-Redwood et al., 2020). The focus on GIS by TCUs is critical because of the invisibility Tribal Nations face within modern mapping systems (Leonard, 2021). Tribal Nations' lands, territories, and waters are often absent or erased from contemporary maps of the U.S. and Canada. TCUs have taken on a proactive role in changing the landscape of contemporary cartography by training students in GIS studies to develop the next

generation of Indigenous mapping specialists and those who can work to assist Tribal Nations with their mapping needs. When Tribal Nations are not included on maps, they are often excluded from environmental and sustainability decision-making processes that affect their lands, territories, and resources. New technology, such as GIS, does not supplant existing knowledge but mobilizes new knowledge-sharing pathways, acquisition, and translation to future generations. Most of the references under the theme of technology were under the *GIS* category.

Economy

The economy dimension was most salient among IHEIs in the United States. This dimension included categories such as subsistence harvesting, food sovereignty, commercial activity, and entrepreneurship. Within the SDI model, the economy "incorporates multiple scales ranging from the individual household, to the tribe, to the region, to the nation, to the globe" (Dockry et al., 2016, p. 130). The category with the most prevalence across IHEIs in the United States was *agriculture*. Comparatively, within the dimension of economy among IHEIs in Canada, the focus shifted to *energy*. As Crazy Bull and White Hat (2019) highlight, the emphasis on economic development through agriculture among Tribal Colleges and Universities is primarily due to their legacy as land grant institutions. Conversely, there was no similar confining historical institution of land grant path dependency for IHEIs within Canada.

Canadian IHEI websites, as compared to the U.S., focused more on energy and specifically on renewable energies. Program areas highlighted postgraduate opportunities for students to enter the Indigenous renewable energy sector. Yellowhead Tribal College offers Renewable Energy Installation Assistant - Photovoltaic Program where students, through blended knowledge instruction by scientists and elders, "learn how renewable energy technology and Traditional Ecological Knowledge (TEK) are vital in balancing traditional values and the needs of industry

and communities in the development of green energy" (Yellowhead Tribal College, 2020). This programmatic area development aims to empower the self-determination and sovereignty of Indigenous nations and communities across Canada whose lands and territories have been threatened by extractive industries. As Lowan-Trudeau (2017) notes, there has been an exponential growth of Indigenous renewable energy projects across Canada, with Indigenous communities in British Columbia and Ontario leading innovation in the sector growth. As Melina Laboucan-Massimo (Lubicon Cree) Program Director at Indigenous Climate Action and Founder of Sacred Earth Solar states,

> There are solutions out there. We need to see change in this world. We need to push for renewable energy systems that help communities to be self-sufficient and self-sustaining. We need to shift away from fossil fuel-based systems and push for a renewable energy system that can help us transition out of what we are currently facing. (Laboucan-Massimo, 2017)

Laboucan-Massimo underscores the environmental justice reality facing many Indigenous students exploring post-secondary education options. Indigenous nations and communities are working towards sustainable economies that support their sovereignty and self-determination, and for many, that has included pursuing renewable energy projects. However, without community members with knowledge of the industry, technology, and science needed to be successful long-term community self-determination goals are in jeopardy. IHEIs have stepped forward to fill this gap and provided education pathways for renewable energy and environmental justice that empower Indigenous students and their communities. These Indigenous-controlled institutions have developed innovative models for Indigenous renewable energy education.

Human perception, activity, and behavior

This dimension was the least salient across all IHEIs. However, there were greater references to this dimension among Canadian IHEIs. Categories referenced among IHEI websites in this dimension included community, values, and collective. Human perception, activity, and behavior is a cross-cutting dimension within the SDI model defined as including "different scales ranging from individual perceptions, activities and behaviors to community understandings, values, and collective pursuits" (Dockry et al., 2016, p. 130). The website descriptions that captured this dimension include the program description for the Bachelor of Science in Hydrology at Salish and Kootenai College. Students are expected "to integrate hydrologic science concepts with awareness of place-based (local or community) issues and their related cultural perspectives" (2021). The emphasis on integration allows for exploration across scales.

Another example is from Nueta Hidatsa Sahnish College, where the Environmental Science Program "focuses on integrating local Fort Berthold environmental issues with Mandan, Hidatsa and Arikara cultures" (NHSC, 2021). As Johnson et al. (2016) observe, Indigenous science and western science have the potential to be woven together if done so in a mutually respectful and beneficial manner. The authors further underscore that our ability to integrate knowledge across scales and work collaboratively will forge our shared prosperity (Johnson et al., 2016). As such, this dimension requires the most growth among IHEIs as they chart a course for environmental sustainability education that meets the demands of our current climate crisis.

Cultural Values (profound sense of place/tie to the land)

This dimension was most salient among IHEIs within Canada, and among those IHEIs, this dimension was the most frequently referenced of all SDI Model dimensions within the websites analyzed. The dimension includes categories such as elders, language, and place. Within the SDI

model, this dimension allows for balancing tensions between dimensions and focuses on a "sense of place" (Dockry et al., 2016, p. 132). As Northwest Indian College, which offers a Bachelor of Science in Native Environmental Science and coursework in marine sciences, describes:

> Our cutting-edge program is designed to support students in becoming leaders in their fields and in their communities. Our curriculum is place-based, experiential, and culturally grounded. That is, we draw on the deep and sustained connections to place and commitment to environmental protection to guide our programming. Our students excel in understanding the changing world around them by working within Indigenous Knowledge Systems and utilizing cutting-edge scientific methods, technology, and tools. (Northwest Indian College, 2020)

IHEIs connection to place inspires other post-secondary institutions to value Indigenous Knowledge in environmental education for meeting sustainability demands (Crazy Bull and White Hat, 2019).

The most salient categories referenced by IHEI websites within Canada included *language* and *elders*. For example, in the Bachelor of Science program in Indigenous Knowledge and Science offered by The First Nations University of Canada, student courses "combine "textbook science" with teachings from the Elders" (2021). IHEIs more frequently referenced elders for teaching or mentorship within Canada than the United States. Leanne Simpson (2002) underscores that one of the core principles of Indigenous environmental education includes "elders as experts" and "grounding programs in Indigenous philosophies of education" (p. 17-20). IHEIs in Canada, as evidenced through their websites, embody this pedagogy by incorporating elders throughout their programming.

Another category *language* was a salient issue among IHEIs within Canada and the United States. Simpson (2002) also lists language as a cornerstone of Indigenous environmental education. IHEIs references to language generally centered on the inclusion of Indigenous language as a mandatory requirement for degree completion. For example, Diné College requires the student to complete at least one Navajo Language course as part of the degree requirements for an Associate of Science in Agroecology/Environmental Science. As Tuck et al. (2014) note, "language is not something developed in isolation in human brains, but in relationship to land and water" (p. 12). IHEIs focus on language is a process of re-storying, resistance, and resurgence in pursuit of greater justice, equity, inclusion, and belonging within environmental sustainability education. As Tuck et al. (2014) further underscore, "a focus on language is required in order to 'rupture' the cognitive imperialism of the zero point of Eurocentric universalism and its rule over ontology and epistemology" (p. 13). In naming language in their program descriptions, IHEIs recognize language as inherent to culture and how Indigenous nations understand a sense of place. Language is the symbiotic reverberation of ancestral knowledge whispered across eons guiding our inherent responsibilities to Mother Earth.

IMPLICATIONS AND CONCLUSION

Indigenous Higher Education Institutions (IHEIs) across Turtle Island (North America) have been at the forefront of environmental and sustainability education for more than 50 years. Scholars argue that many IHEIs formed in response to termination policy agendas directed at Tribes and First Nations in the first half of the 20th century by the U.S. and Canadian governments. Indigenous nations championed their right to self-determination in resistance to those policies and led with calls for educational changes that would advance Indigenous rights and sovereignty (Cole, 2011; Jenkins, 2007). Thereby Indigenous communities invested in IHEIs for self-determination

and nation-building. As Simpson (2002) highlights, the survivance of Indigenous Peoples relies on our ability to develop educational systems grounded in our Indigenous Knowledge Systems so that youth can engage and reclaim their knowledge and languages while also developing an educational system that will support future generations of Indigenous learners to do the same.

This article analyzed IHEIs websites to better understand and compare the scope of environmental and sustainability education program offerings within the United States and Canada and determine thematic alignment with the Sustainable Development Institute Model. The comparative study revealed the need for increased levels of graduate post-secondary training in Indigenous environmental and sustainability education as Indigenous students graduating from IHEI undergraduate programs look to advance their academic credentials and scientific research. In addition, the analysis of IHEIs in Canada and the United States highlighted the absence of Indigenous post-secondary institutions under Indigenous control within the eastern regions of the United States and Canada. The absence of IHEIs in the East of Turtle Island limits the educational pathways for Indigenous students of this region to pursue environmental and sustainability post-secondary education at an institution within their homelands that is accountable to the communities they belong to. To center Indigenous Knowledge from the eastern regions of Turtle Island for environmental and sustainability education, Indigenous Nations, in coordination with the U.S. and Canadian federal governments, will need to establish IHEIs in the region. An IHEI in the region could be under control and accountable to a coalition of Indigenous Nations if independent chartering would not be sustainable.

This study has shown that IHEIs continue to champion environmental and sustainability education because it is rooted in the process of decolonization that empowers Indigenous Knowledge Systems to fight systemic legacies of educational assimilation of Indigenous Peoples

in the U.S. and Canada. IHEIs were formed to respond to Indigenous needs. This included the need to reclaim Indigenous environmental knowledge. IHEI students are connected to Indigenous nations and communities on the frontlines of climate change. As environmental challenges continue to grow, IHEIs are vital institutions for developing scientists and researchers who can tackle those pressing challenges utilizing Indigenous Knowledge while grounded in their connection to land and communities directly impacted. Above all, IHEIs commitment to environmental and sustainability education aims to position Indigenous youth and communities with the capacity and resilience to respond to emerging sustainability challenges and opportunities in our homelands.

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Decolonization and Transformation of Higher Education for Sustainability: Integrating Indigenous Knowledge into Policy, Teaching, Research, and Practice

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ABSTRACT

This article argues that institutions of higher education (IHEs) require a fundamental paradigm shift toward an Indigenous Knowledge (IK) model inclusive of Indigenous Peoples, perspectives, and values. This model acknowledges the sacred value of nature, the rights of non human species, and the power and potential of transformative learning via collaboration with Indigenous communities. Through four personal experiences from one IHE, we highlight challenges and opportunities to decolonize higher education across the domains of policy, research, teaching, and programs. Examples include the Graduate Student Government's resistance to university policies of unsustainable construction projects; incorporating IK from Eastern traditions and world spiritual

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practices into course curriculum; Indigenizing higher education courses and projects through inclusion and collaboration with local Indigenous tribal members; and finally, ongoing transnational research and education collaborations with an Indigenous Mebêngôkre-Kayapó community in the Brazilian Amazon.

Keywords: decolonization, higher education, Indigenous Knowledge, sustainability

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INTRODUCTION

Today, institutions of higher education (IHEs) tout sustainability, environmental awareness, and civic responsibility. However, practices at colleges and universities throughout North America often contradict these principles. Historic trees are cut down to make way for the newest buildings, and buildings and curriculum trap learners inside, presenting nature as a "distant other." Administrative decisions focus on the bottom line, and courses on sustainability emphasize economic growth and consumption. Heesoon Bai (2015) describes modern education as "abstract, explicit, precise, fragmenting, narrow, static, mechanical, and lack[ing] empathic ways of being" (p. 141). Indeed, in our view, higher education institutions are still fundamentally rooted in anthropocentric, colonial perspectives, albeit many endeavors have been made to promote sustainable development (Lin et al., 2020). Furthermore, higher education institutions have been unable to address the catastrophic social and environmental impacts of climate change. We propose that a decolonized educational paradigm is necessary for fundamental changes to take place; this paradigm posits nature as living, dignified, intelligent, and deeply connected to humanity. Indigenous communities and Indigenous Knowledge (IK) can offer innovative concepts, tools, and methods for transforming our ways of knowing and being, fostering virtues such as equanimity, humility, respect, compassion, and peace.

In this article, we argue for the need to decolonize higher education and propose a model for integrating Indigenous communities and IK into postsecondary policies and practices. We share examples of decolonizing policy, teaching, research programs, and collaborative projects from one institution of higher education (IHE). First, we share how the Graduate Student Government (GSG) integrated lessons from a Cambodian Indigenous community and a Buddhist monks' deforestation resistance movement to challenge university policies of unsustainable construction projects. Next, we describe the incorporation of IK from Eastern traditions and world spiritual practices into an ecological ethics and education course curriculum. Then, we discuss the challenges of Indigenizing higher education courses, projects, and efforts to cultivate inclusion and collaboration with local Indigenous tribal members. Finally, we present the ongoing evolution of a global partnership which aligns IHE research projects and student study abroad field courses with the Mebêngôkre-Kayapó, an Indigenous community in the Brazilian Amazon. These cases highlight that changes can be made within university governance, curriculum design, interdisciplinary projects, and international education partnerships. Sustainability endeavors in higher education, in our view, involve activism, the incorporation of Indigenous knowledge, the importance of ensuring that Indigenous people play a central role in university projects, and the involvement of students working with Indigenous communities to sustain and protect nature.

CURRENT MODEL FOR HIGHER EDUCATION

Although there are some significant efforts by IHEs to promote sustainability in research, teaching and programs, as illustrated by the annual Green College Survey conducted by the Princeton Review[1], the current model of higher education still fundamentally operates from colonial and capitalistic paradigms. Colonialism and capitalism, driven by the hunger for power and wealth, enculturate learners into industrial

[1] See https://www.princetonreview.com/college-rankings/green-guide/data-partnership

and neoliberal perspectives and thinking (Watson, 2020). In other words, higher education largely aims to train talents who would work for an economic structure that centers on possessing "resources" or achieving "success," as indicated by power and wealth. Under the capitalist root metaphor that human society will always aim to produce more for perpetual, lineal, and upward growth (Bowers, 2002), the fundamental mission of higher education is based on anthropocentric values. In order to achieve efficiency and effectiveness, university departments and programs form into specialization silos, making it difficult for learners to see interrelated concepts and gain a holistic perspective on our ecological connection with nature. Through compartmentalized, fragmented, and abstract learning, nature and other species are not seen as alive and intelligent beings who share the world with us, but are instead treated as lifeless and inconsequential. Subsequently, the interests and wellbeing of non-human species are out of sight - and then out of mind - from many of the most highly educated people.

In Western society, the history of colonialism is still very much unreflected upon. Colonialism was upheld by White supremacy, which denigrates a large part of the world and deems some races and cultures to be inferior. Today, hierarchical cultural norms are still maintained, which fundamentally sabotages the equanimity of all beings and the interconnection of all existence (Smith, 2012). Universities are a microcosm of this phenomenon; they are established on unceded Indigenous lands and function as small colonies. Indigenous values pertaining to the interconnectedness of the natural world are replaced with mostly unquestioned Eurocentric, anthropocentric worldviews. In fact, the scientific, Eurocentric, positivist mindset that dominates our higher educational systems embodies colonial, Western perspectives, privileging detached, abstract, and rational knowing and learning as superior to other ways of knowing. For the most part, learning takes place indoors in rectangular classrooms and labs, in buildings that do not replicate nature or natural forms, connected with the local ecology and living world. Students are

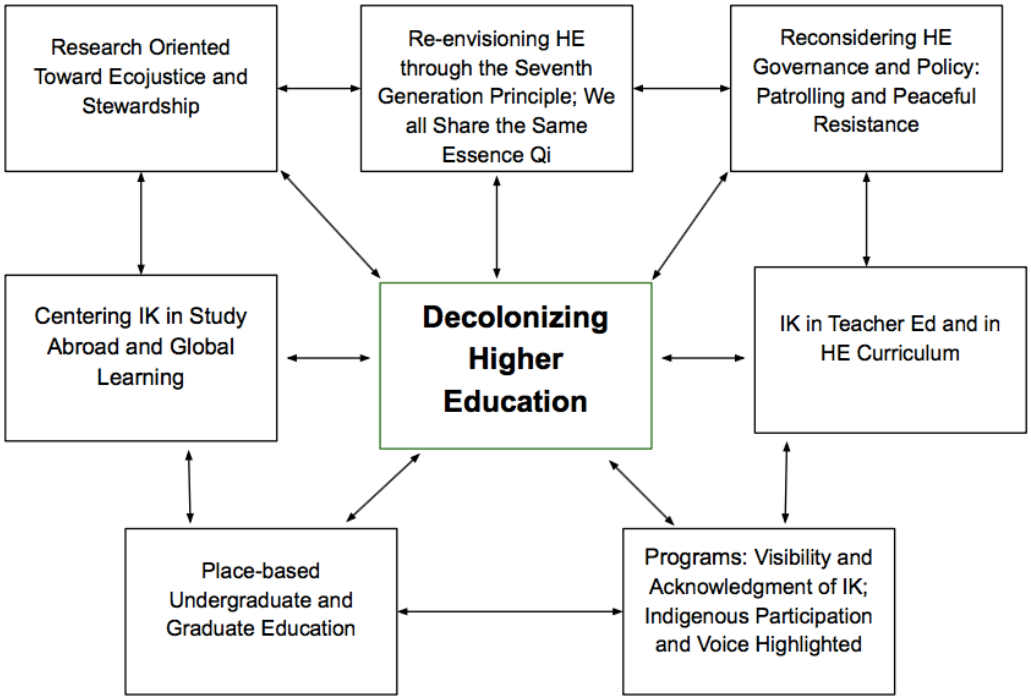
burdened with an unbearable amount of mind-focused, productivity-oriented tasks; given little time and space for breathing and inward looking; and rarely have the opportunity to engage deeply with the local ecology and living world. University students are expected to become efficient and productive workers who uphold systems that reinforce individual progress and wealth accumulation rather than the wellbeing of the broader ecological community (Lin et al., 2020; Culham & Lin, 2020; Bowers, 2002).

DECOLONIZING HIGHER EDUCATION THROUGH AN INDIGENOUS KNOWLEDGE MODEL

To decolonize the educational paradigm prevalent in IHEs, we propose a shift toward an IK model that is place based, nature based, and ecologically guided. In the IK model, nature is perceived and treated as living, warm, dignified, and intelligent, and all living species have the right to life and respect (Lin et al., 2020). It posits nature not as "wild" or as "resources" but as family. The model calls for "centering concerns and worldviews" of Indigenous people in IHEs to counter colonial and capitalistic ideologies (Smith, 2012, p. 41). In the model, higher education is to be re-envisioned through the indigenous Seventh Generation Principle; IK is to guide undergraduate and graduate education (which should be place-based); IK is comprehensively incorporated into university governance and policy, teacher education, research endeavors, study abroad programs and university-community partnership, all with an overarching goal of promoting ecojustice and stewardship. Here is a diagram of the IK model (see Figure 1).

Figure 1

Indigenous Knowledge Model



Smith (2012) shared twenty-five Indigenous projects that demonstrated strategies for decolonizing IHEs. In particular, IHEs must collaborate with Indigenous communities to invite the sharing of Indigenous perspectives, network with Indigenous people, reframe education from Indigenous worldviews, support Indigenous representation, and co-develop a vision of a sustainable future in harmony with nature (Smith, 2012). We recognize that Indigenous populations and Indigenous worldviews are diverse, but there are common principles that are shared across Indigenous communities. For example, the Indigenous Seventh Generation Principle is commonly held among indigenous groups. This principle holds that anything we do could affect seven generations into the future. This Indigenous principle reminds us we must be responsible for our actions as future generations and their ecological living systems are affected for the long term, and multiple generations of humans share an interconnected destiny with their ecosystems. IHEs' understanding and adoption of this Indigenous principle can shift the current colonial paradigm to

one that values and sustains life, where "the priority to care for and protect the land is for the *Web of all Life*, and the *Seven Generations* yet to come" (Eyers, 2017).

FOUR EXAMPLES OF DECOLONIZING EFFORTS IN AN INSTITUTE OF HIGHER EDUCATION

As members of an IHE, we have individual agency to direct our work towards decolonized practices. Here, we share four decolonization efforts at one university campus that touches on the topics of university governance, instruction, and campus/community collaborations at home and abroad.

Re-envisioning Sustainability Through Relational Awareness - Annie Rappeport

The Indigenous people of Cambodia value the wisdom of their ancestors and the special connection they have with the trees. They believe they owe their lives and livelihoods to the trees, and that, like the skin that envelops and protects the human body, the forests of Cambodia protect the community. This is the foundation of their Indigenous Knowledge system. Trees have inalienable rights that must be respected and protected (Lemkin & Jewson, 2016). Geographic surveying and data collection by USAID indicates that Cambodia has a rich biodiversity with over 2,300 plant species (USAID, 2018). However, due to legal and illegal logging practices, deforestation runs rampant throughout the country. In response, Indigenous Cambodian communities have come together to protest on behalf of the trees. The loss of the trees, which Indigenous Cambodians describe as nature's elders, is reminiscent of the tragic loss of Buddhist Cambodian elders during the Khmer Rouge genocide (Zucker, 2008).

Advocacy for the forest is also actively supported by the *sangha* (a *sangha* is a Buddhist community of monks, nuns, novices, and laity) who, since the 1990s, have regained freedom and influence over Cambodian culture (Maza, 2017). The *sangha* and Indigenous Cambodian leaders have risked their freedom and lives to speak out for the trees of Cambodia (Chandran, 2017;

Lemkin & Jewson, 2016). Working in tandem, Indigenous and *sangha* communities exposed illegal logging activity, created patrolling teams, highlighted forest destruction, and increased public interest in forest protection through convenings and peaceful protests.

Both the *sangha* and Indigenous communities feel compelled to advocate for the rights of nature. They believe trees have an inherent right to life, as they are elders with wisdom and are ancestors worthy of respect and reverence. These strong values persist after millennia in spite of the anthropocentric ideologies imposed upon the society and imported into the country via occupations, wars, and globalized trade. One of the *sangha's* most striking forms of advocacy is holding a ceremony to robe trees with saffron, a ritual for robing human elders/teachers. This practice demonstrates that the Buddhist monks hold trees with the same level of reverence as the highly honored human members of the *sangha*. To protect the forest members of the *sangha*, Bun Saluth, a monk with a creative and powerful resolve, led a group to dig a deep ditch around a forest to create a protective barrier (Groeneveld, n.d.). These examples demonstrate how Cambodia's Buddhist communities pursue environmental activism in peaceful, yet effective ways. They provide insights and inspiration for individuals and communities in other contexts who wish to protect nature in the midst of pressure compelled by economic development.

The insights I gained through my years of working with Cambodians influenced my activism in the university where I study and work. In theory, the university I affiliate with has formulated policies aimed at being a role model for sustainability among higher education institutions across the nation and world. However, sustainability and economic priority are entangled in tensions and contestations due to pressure to expand the campus as a measure of economic growth. I witness how economic growth priorities override the primacy of sustainability. One such example was the campus leadership's decision to "develop" the largest greenspace, the

golf course, to create large parking lots to accommodate the thousands of people flocking to campus for football games. Using a scarcity argument (limited space leads to limited options) and rhetoric that the existing greenspace was used only by an elite few, the university planned to develop the greenspace into parking lots. This plan was initially well received. However, when student leaders heard environmental concerns by the students during a town hall meeting, the Graduate Student Government (GSG) decided to take critical actions.

As President of GSG, inspired by the actions of the Cambodia's Indigenous leaders and Buddhist monks, I reached out to graduate students who directly benefited from the existing greenspace, such as those who study astronomy (there is an observation facility nearby) and environmental studies. We curated lessons and testimonies from environmental experts in the community. Through these endeavors, a coalition consisting of students and faculty was formed, and a resolution for preservation of the green space was drafted. The coalition worked with the campus student newspaper to publicly expose the detrimental environmental and academic effects of the proposed development. On campus and at the golf course, we maintained a constant physical presence in important discussion events and engaged in peaceful persistence as we articulated the negative effects of the proposed development to members of the community. Throughout all of the activities, we remained calm and respectful, reminiscent of the actions by the Indigenous Cambodian communities and Buddhist monks.

In a sense, the coalition was "patrolling" the bureaucratic process, much like Cambodia's Indigenous and monk communities. Plans to develop the greenspace were effectively slowed down by the coalition and by other community groups who wrote petition and protest letters, requested a change of plans, and pointed out the misalignment between the proposal and the university's sustainability principles. Through mobilizing and networking with stakeholders, gathering

testimonies, and examining campus development projects through Indigenous perspectives, the coalition formed by the GSG helped with decolonizing practices in an IHE that can be applied to other contexts, organizations, and policies.

Incorporating Eastern Indigenous Perspectives: Embodying Respect for Nature and Equanimity of All Species - Jing Lin

Indigenous Eastern traditions emphasize an ontology that everything is connected, and all are spirits with intrinsic values and intelligence. As faculty, I incorporate this ontology by emphasizing a holistic understanding of ourselves and the world around us. I have devoted my research to this topic and have published many books and articles over the years. In Eastern philosophy, embodiment is critical and I have made this a priority in my teaching. Not only do I try to embody what I am teaching, I also integrate these teachings into my classes. I do this by incorporating the Taoist cosmology and epistemology, as well insights from Buddhism and Confucianism into my research and teaching.

Taoist cosmology and epistemology focus on Qi as the creative energy and spirit, and virtue is taken as the mechanism undergirding the universe (Culham & Lin, 2020). Taoism posits that everything in the universe is imbued in the Tao creative energy called Primordial Qi. In my classes, we discuss the Daoist philosophy, and I engage students in exploring Daoist arts, which has a striking feature of intuiting the spirit and energy of nature, bringing nature into the center of arts and the artists' whole being. I use Taoist arts to discuss the implications of arts for sustainability education.

Further, in my classes, students explore Buddhist perspectives in terms of the equanimity of all existence. I illustrate that Buddhist cultivation leads people to an expanded view of the human family as a part of the broader Earth and cosmic community. I share the story of Buddha

giving his life to save six tigers (Lin, 2019). This story embodies the principle that all life is sacred and valuable, and that human life does not supersede the value of the life of non-human species. I also incorporate the tenets of Confucian philosophy which teach that humans and nature are one and they correspond and resonate with each other.

By incorporating Eastern Indigenous teachings of Taoism, Confucianism, and Buddhism, I attempt to counter anthropocentric, colonial, and capitalist ideologies and hierarchies. I present alternative worldviews on our role and position as human beings in relation to our ecosystems and the universe. I also incorporate Western and other Indigenous perspectives which hold deep respect for nature and non-human life forms. In my course on Ecological Ethics and Education, I routinely engaged students in an exercise where the scenario of a hungry person is presented and the ethical question concerns whether a lamb or a chicken should be killed to feed the person. During this exercise, we discussed various responses based on differing spiritual and religious perspectives, examining the spectrum of responses from Jainism, which believes even tiny insects should not be killed, to Buddhism, Taoism, Hinduism, and to western religions. This exercise helped students see how our worldviews shape how we position the values of other species in relation to humans. We also debunked the capitalist notion of progress and engaged in studying and reflecting on creative approaches for sustainability education. Eco-justice topics and student and civil society activism are discussed. Finally, students designed plans to make changes in various contexts. Over the years, many students who have taken the course have become environmental activists. They shared that the course has been transformative to them - and has raised their awareness. Some published research papers, while some created programs and planned to open their own ecological farms. One student drafted a vision for transforming the university he works in and has led many institutional initiatives while working as a sustainability program manager.

A Seat at the Table: Indigenizing Higher Education - Angela Stoltz

When I began my doctoral studies, one of my most challenging experiences was the awareness that Indigenous people, perspectives, and issues were completely absent from university spaces. I struggled with this on a personal level because I have over 40 years of experience and enculturation with and children who are members of the Nanticoke tribal community. As a parent, I have witnessed and experienced the negative impacts that colonialism has on Indigenous children, families, communities, and way of life. As a teacher and teacher educator, I believe it is our responsibility to educate current teachers, future teachers, and the local community about local Indigenous histories, nations, and values in order to decolonize our educational institutions and society and to ensure a viable future for Earth, her non-human inhabitants, and future generations.

As clinical faculty, I decolonize my institutional spaces by Indigenizing them. I curate curricular resources that highlight nearby Indigenous communities and K-12 curricula which reflect the cultural and community assets of Indigenous people. These resources are used in my pre-service and in-service teacher preparation courses where I developed lessons on the history of Indigenous education in the US, current issues facing Indigenous students in the US, and strategies for supporting Indigenous students in K-12 education in the United States. The resources I curated are the result of collaborations with local tribal members and leaders in Native American education who have supported tribal communities for decades. The Indigenized materials incorporated into my teacher preparation courses align well with social justice initiatives in mathematics education, such as Julia Aguirre's Math Strong work (2018) and the College of Education's Diversity and Inclusion Teacher Preparation Initiatives.

One result of Indigenizing my pre-service and in-service teacher preparation courses is that my students started to recognize the negative narratives surrounding Indigenous K-12 students and

their families. Further, they acknowledge their ignorance of Native American educational histories, K-12 students, and educational needs in K-12 classrooms. This new understanding led to the development of critical perspectives on our colonial educational system. The activities in my class catalyze pre-service teachers' interests in learning about local Native communities and bolster them to think of strategies that support K-12 Native children in their communities. Despite these changes, these practices are only a starting point for decolonizing teacher preparation and education courses. Teacher education programs require further commitment to ensure that teachers are provided with the skill sets to support their own decolonized curricular and instructional practices.

I also work to Indigenize university initiatives focused on sustainability. In 2017, I volunteered for our university's Solar Decathlon (SD) team which developed a net zero carbon emission housing design that integrated Indigenous Knowledge Systems (IKS) with westernized systems-based design principles (USDOE, 2017). During my first meeting with a PI for the project, I learned that there were no local tribal members on the project. In response, I engaged local tribes and tribal members to share information on the project, expressed the need for local tribal representation, and inquired about their willingness to participate as advisors for the team. It was clear to me that, first and foremost, local tribal community members needed a seat at the table for the project to ethically move forward, as *only Indigenous people have ownership over Indigenous Knowledge*. With representation from local tribal leaders on the SD team, a door was opened to an authentic reframing of "sustainability" from the lens of IK.

The SD collaborative project featured IK in the SD design, highlighting humans as an inherent part of the air, sunlight, and greenery of the environment. The project invited local tribal elders to share their beliefs and history, on how they have lived in harmony with nature by

minimizing waste and impact. Tribal members' beliefs and practices were incorporated into designing and building SD with modern technology. The project took second place in an international SD competition.

In subsequent engagement in interdisciplinary sustainability efforts, I continue to collaborate with local tribal community members and leaders through an informal coalition. Following the coalition's weekly group discussions, I have begun meeting with administrative leaders in my university to discuss departmental and institutional level policies that support partnerships with local Indigenous communities. The next step is to engage the Indigenous coalition with university administrators to move policies forward that support our local tribal communities through collaboration. One such effort is to increase the admission of Native American students who are very underrepresented in our university (less than 2% of the students are Native Americans). A think tank consisting of tribal elders, indigenous educators, academics, and government officials have met with enrollment officials at the university. These efforts are ongoing, and they regularly remind me of how deeply ingrained colonial ideologies and perspectives are in the daily lives of our higher education community. These ideologies and perspectives are apparent through the language we use; the perspectives we present and ignore; our active efforts to deny Indigenous sovereignty, agency, presence, and perspectives, and our tendencies toward adopting a "white savior complex."

Recentering Indigenous Communities Within University Partnerships - Matthew Aruch

I have been involved since 2014 in a partnership between the Mebêngôkre Kayapó community of A'Ukre in the Brazilian Amazon and university partners from the United States, Canada, and Brazil. I work as a study abroad field course instructor, taking students from my IHE to the Kayapó community every summer. During this process, I became familiar with the

partnership history and was active in ongoing partnership activities. To me, the partnership demonstrates the potential for mutual learning and reciprocal benefits between an IHE and an Indigenous community.

Similar to the Cambodia example above, The Kayapó Indigenous Territories (KIT) are located at the "arc of deforestation," an area of the southeastern Amazon under constant threat of logging, mining, and agricultural pressures (Anderson, 2019; Hecht & Cockburn, 2010; Schmink & Wood, 1992). To counter these pressures, Indigenous Mebêngôkre-Kayapó communities have long partnered with nongovernmental organizations (NGOs), IHEs, and other allies to protect their land and culture through transnational advocacy networks (Keck & Sikkink, 1994; Zanotti, 2016; Zimmerman et al., 2001). In one innovative example, the Kayapó community of A'Ukre entered a research and education partnership with an international NGO in 1992 to create the Pinkaiti ecological research station (Pinkaiti) (Conservation International, 2020; Zimmerman et al., 2001). The partnership created an 8,000 hectare tropical forest preserve for research to offset the A'Ukre community's economic pressures for regional mahogany logging. The ongoing university-A'Ukre community collaborations represent an evolving example of decolonization efforts through recentering and reframing partnership activities and benefits over time.

At first, IHE participants were driven by their own research agendas, and Indigenous knowledge was used separately and in support of "academic" scientific explorations (Agarwal, 1995; Berkes, 2009). Between 1992 – 2004, Pinkaiti was an active research facility for about two dozen university researchers from Brazil, Canada, and the United States. Over time, IHE participants and A'Ukre relationships moved beyond research. The university researchers became increasingly involved in Kayapó cultural activities, which often eclipsed their IHE research

agendas. In a 2019 participant interview, a Brazilian researcher noted the shift from tropical ecology research to community relationships:

> [At first,] I think it was mainly the wilderness - the pristine and the non-impacted [forest]. But, with time, I developed very close ties with the community. And now I am much more connected with the cultural aspects with the Indians than anything else. If I went to A'Ukre now, I wouldn't go straight to the project [Pinkaiti]. I would stay in A'Ukre, at least for a good part of the time, because they are like my relatives. They are more than friends. They are family to me.

In 2004, Pinkaiti shifted from a research space to one of international education working with the A'Ukre community. Modeled on earlier research activities, the IHE affiliate piloted the first Kayapó study abroad field course (Aruch et al., 2019; Zanotti & Chernela, 2008). The first IHE courses used only Pinkaiti infrastructure, and Kayapó participation was limited to those who had supported earlier research. Over time, the field course resources, activities, and leadership increasingly centered on the A'Ukre community to highlight Indigenous knowledge and governance norms. Course activities expanded beyond Pinkaiti to A'Ukre, and facilities were constructed or repurposed to support IHE participants. In addition, A'Ukre drove instructional equity, creating participation opportunities for younger Kayapó men and women of all ages.

Today, the partnership works in such a way that field course curricula and activities are co-constructed among university, community, and NGO partners (Associação Floresta Protegida, 2020). During the course, two community-appointed field course coordinators work alongside North American and Brazilian IHE instructors to weave together a curriculum of Indigenous knowledge, natural sciences, and social sciences related to tropical ecology, Indigenous cosmology, agriculture, sustainable development, the arts, and mediamaking. Indigenous ethics

feature prominently in course design. All IHE participants sign a code of ethics around media use, traditional knowledge, and biopiracy. At the end of the course, participants leave copies of all media with the community.

Increasingly, commitment to a community driven set of norms and activities is affirmed by multinational IHE faculty, centering on Kayapó people's demands, knowledge, practices, and expertise. The course has created a third space (Bhaba, 1994) where international education facilitates a complex "dialogue and partnership" across diverse knowledge and perspectives (Berkes, 2009, p. 151). One instructor noted the balance among partners in a 2019 participant interview:

> There's a lot of voices, and it's hard, I think, to attend to everything at once, and there are kind of competing visions on what and how the course should be. And so, trying to find that, that medium that benefits the community, that the community can control and can govern and feel ownership over.

The ongoing multinational IHE-A'Ukre community relationship represents an ongoing process of decolonization committed to recentering IK knowledge and generating allies and expertise (Smith, 2012). The A'Ukre community considers themselves experts in working with the US, Canadian, and Brazilian IHE partners, often consulting with other Kayapó villages considering collaboration with NGOs or IHEs (personal communication, 2019). Pinkaiti researchers and field course students continue to engage with the Kayapó through community driven research projects and NGO programs (kokojagoti.org; Ramon Parra et al., 2018).

CONCLUSION

Decolonization is not "uncolonization," nor can the legacy of colonization be simply addressed through the strategies described above. IHEs require a paradigm shift to move toward

sustainable models for research, policy, teaching, and practice. IK can catalyze and enlighten such a paradigm shift. We understand that, to truly decolonize IHEs, we need institutional buy-in at the highest level. At the same time, we need to educate our university faculty and staff on how to transform our practice in ways that embed the wisdom of IK for sustainability across all colleges and programs. To accomplish this, we need both internal and external strategies. Internally, we recommend cross-college and cross-disciplinary dialogues and actions. Externally, we must enlist the support of Indigenous communities and state and federal agencies who focus on place-based and nature-based education, sustainable ecological virtues, and systems thinking. Through the decolonization of IHE, we can co-develop a collective vision and a set of holistic, practice-based activities for all institutional stakeholders to engage in support of a sustainable future. The IK model we have designed summarizes what we have illustrated in our examples and provides some strategies that can be used by IHEs to support this effort that are drawn from our experiences and practices.

Although universities are making efforts to incorporate sustainability into their endeavors, Indigenous communities and IK continue to be marginalized within a paradigm that embraces a predatory ethos toward nature and IK. Our article provides four examples that demonstrate the potential transformation of higher education for sustainability across domains of policy, teaching, research, and collaborative programs. The IK model is also relevant for other institutions, private or public. Armed with IK knowledge, resistance can happen peacefully, stopping projects that deplete our green space; dialogues can take place that could foster our compassion for other species facing extinction; projects can incorporate Indigenous people, giving them an important seat at the table; and true partnerships can form through mutual learning and a sense of ownership for the

local community. As individuals, we can do something, and, as a collective, we have the power to push for broad and fundamental institutional change, which we must do without delay.

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Enabling Sustainable Development by Embedding Tongan Knowledge into University Science Curricula

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ABSTRACT

Sustainable development requires the valuing of Indigenous knowledges. The complex and intertwined processes of coloniality and globalisation have contributed to spreading a dominant set of Western knowledge, values, and practices discrediting local Indigenous knowledges and wisdom (Thaman, 2003). Achieving Sustainable Development Goal 4 (SDG4), to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all", requires educators to recognise that non-Western students continuously negotiate the disconnect between their formal Western education and their cultures. Developing educational sustainability requires resetting this educational imbalance. Culturally sustaining pedagogy acknowledges and encourages cultural pluralism something often absent in the teaching of Western Modern Science. Here I describe the *'Ulungaanga faka-Tonga Fonu* model, a response to Thaman's directive that embedding Indigenous knowledges in higher education institutions' formal curriculum enriches

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student experience by providing diverse understandings, perspectives, and wisdoms. This model demonstrates a way to engage with Tongan knowledge in formal teaching spaces.

Keywords: culturally sustaining pedagogy, cultural values, indigenous knowledge, Moana, Pacific, science education, sustaining pedagogy, Tonga, university

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INTRODUCTION

The complex and intertwined processes of coloniality and globalisation have contributed to spreading a dominant set of western knowledge, values, and practices discrediting local Indigenous knowledges and wisdom (Thaman, 2003). Developing educational sustainably requires a resetting of this educational imbalance, in particular, the inclusion of Indigenous knowledges in the formal curriculum of higher education to expose students to diverse understandings, perspectives, and wisdom (Thaman, 2003). If Indigenous knowledges are not included in the formal (science) curriculum (Howlett et al., 2008), the students might feel "othered" or deficient in an educational institution's culture because of the inherent social and cultural bias that favours the dominant social groups (Bishop et al., 2014; Kahu, 2013). Paris (2012) introduced the concept of culturally sustaining pedagogy which values "our multi-ethnic and multilingual present and future" by emphasising the need to "support young people in sustaining the cultural and linguistic competence of their communities while simultaneously offering access to dominant cultural competence" (p. 95). The goal of integrating Indigenous knowledges in the curriculum is to empower students to be owners of what they study. This approach supports the aim of SDG 4, to ensure inclusivity and equitability of opportunity in education, by creating opportunities that ensure Indigenous students also hear about their knowledge and ways of being throughout their education experience.

Moana/Pacific Achievement in the Context of Western Modern Science

Concerns about *Moana*/Pacific student achievement in Aotearoa (the Indigenous name for New Zealand) New Zealand have been debated and discussed for several decades, yet the underachievement of *Moana*/Pacific students continues. According to Education Counts (2021a), only 22.8 percent of Pacific school leavers attained a University Entrance Award compared with 43.8 percent of Pākehā, 63.8 percent Asian, and 18.6 percent Māori; such outcomes have considerable impacts on engagement in higher education and its subsequent benefits. Despite the low proportion of Pacific tertiary students in Aotearoa New Zealand compared to other ethnicities, their numbers are increasing which represents a demographic shift for the tertiary sector (Education Counts, 2018). This provides incentive to address teaching practices and learning environments so that they do not continue to hinder the successful engagement, enjoyment, and success of many Pasifika students (Benseman et al., 2006; Airini et al., 2010).

Moana/Pacific students have perspectives which differ from those presented in the mainstream education system in Aotearoa New Zealand. These world views and perspectives may not fit with the current teaching and learning methods driven by recent reform and globalising processes. Furthermore, although Pacific peoples may share some widespread beliefs and values (Hau'ofa, 1998), *Moana*/Pacific peoples are not homogenous. There is considerable variation in ideologies and viewpoints among the different Pasifika ethnic groups in Aotearoa New Zealand (Samu et al., 2008). As previously stated, a single label masks the complexity of each group, hence the need to begin focusing on individual ethnic groups to meet their specific needs.

The New Zealand Government's Pasifika Education Plans indicate that educational achievement for Pacific students is a government priority, yet *Moana*/Pacific students, despite recent improvements, have some of the lowest achievement rates of any ethnic group in Aotearoa New

Zealand. For example, the number of Pacific school leavers gaining Level 3, the highest level, of Aotearoa New Zealand's National Certificate of Educational Achievement (NCEA) has increased but it is still low compared to other ethnicities (Education Counts, 2021). In 2019, 46.3 percent of Pacific school leavers achieved NCEA Level 3 or above compared with 56.7 percent of Pākehā, 75.2 percent of Asian, and 35.6 percent of Māori (Education Counts, 2021). Furthermore, the homogenising approach to policies for Pacific education in Aotearoa New Zealand does not acknowledge the cultural nuances of *Moana*/Pacific groups.

Vaioleti (2011) argued in his study of Tongan students, that if "an acknowledgement of [their] Tongan identity and the knowledge that their unique ways of learning and current knowing are respected," Tongan student achievement will improve at all levels of the education system (p. 13). Therefore, to de-homogenise *Moana*/Pacific learner experiences, this research specifically focused on Tongan science learners to improve science educators' understanding of how to engage Tongan (and all *Moana*/Pacific) science learners so that they may be successful in Aotearoa New Zealand's education system. My qualitative doctoral research gathered stories from successful university-level Tongan (the Kingdom of Tonga is a Pacific Island country with diasporic populations in Aotearoa New Zealand, Australia, the United States of America, among other countries) science learners to understand how they experienced their science education in light of the underachievement of *Moana*/Pacific students in science (Bull et al., 2010; May with Flockton & Kirkham, 2016). Most of these participants reported feeling culturally isolated and excluded as they did not see their views, knowledge, or values represented in their science education.

While this article briefly describes the methods and some of the findings of my research, the focus of the article is on sharing a key outcome of the research; the development of the *'Ulungaanga faka-Tonga Fonu* model. This model responds to the participants' stories around the kinds of

teaching and learning practices that supported their learning and provides guidance for culturally sustaining pedagogy for Tongan learners. I will first provide a brief overview of the conceptual framework for this research. I will then discuss my relational positionality, which influences every aspect of the research and is important to acknowledge as I am non-Indigenous. I will then give a brief overview of the methods and findings before discussing in detail the Framework and how it has been used subsequent to my initial research.

CONCEPTUAL FRAMEWORK

Learner Identity

Ethnic minority students in higher education institutions that cater to the needs of the students from the dominant cultural group often feel isolated and out of place in their learning environments because they are underrepresented (Syed et al., 2011). Identity is important for the academic success and retention of all students but particularly so for underrepresented ethnic minority students (Syed et al., 2011). Unfortunately, some teachers in Aotearoa New Zealand perceive Pacific students through a deficit lens which assumes their academic underachievement (Ferguson et al., 2008; Siope, 2010). Teachers usually allocate their students a learner identity rather than affirm one they already hold; for Pasifika students, this can "promote fixed, unrealistic, fragmented and singular identities" (Siteine, 2010, p. 9).

Identity is a complex concept that covers many aspects of a person, such as who they are and their sense of belonging and knowledge systems. This is evident in the variety of terms applied to students with ancestral connections to island nations in the Pacific Ocean. Currently, 'Pasifika' is commonly used by The New Zealand Ministry of Education and in the field of education to describe the Pacific diaspora in Aotearoa New Zealand (Ministry of Education, 2009), as opposed

to the term “Pacific”, which signifies the island nations of the Pacific, excluding Australia and Aotearoa New Zealand.

For several decades, several researchers have argued using a collective term “conceal[s] and undermine[s] the historical social, political, and cultural uniqueness of each Pacific Islands society” (Mara et al., 1994, p. 182). In response, I have chosen to use *Moana* in this article as well as Pasifika/Pacific; Pasifika and Pacific (with respect to students and education) have been kept because they were emphasised or used by the authors that I draw on in this article. “*Moana*/Pacific” in this article refers to learners with ancestry to the Indigenous people of the different island nations of the Pacific Ocean. *Moana* is an indigenous term that refers to a large body of water or the ocean, it is present in many different languages found across the Pacific Ocean and refers to people connected to the Pacific Ocean (Ka’ili, 2005). Only indigenous words and voices, in the form of the participant quotes, have been highlighted by italicising, to differentiate and privilege this knowledge.

Globalisation and Science Education

Internationally, many previously colonised countries are dealing with how to develop culturally relevant curricula that suit their culture and history, complicated further by the hegemony of Western culture in this time of globalisation and the heterogeneity of different cultural groups (Tikly, 1999), for example, Canada (Aikenhead, 1997) and Australia (Hansen, 2016). Globalisation is a complex process that blurs national boundaries economically, politically, culturally, and socially. Globalisation is not homogeneous and has manifested itself in multiple ways over many decades. It is relevant to the discussion of SDG4 because, in its current neo-liberal form, globalisation is spreading a dominant set of western industrialised knowledge, values, and

practices, including the subculture of Western Modern Science (WMS), replacing local Indigenous knowledges and wisdom (Cobern & Aikenhead, 1997; Thaman, 2003).

In the anthropology of education, G. Spindler defined culture as "patterns for living, acquired through socialization and enculturation, and passed on and modified by each generation" (Hammond & Brandt, 2004, p. 3). As such, WMS has been considered by some to be a subculture of Western culture, a group within a culture that has systems of meaning and symbols that convey identity and aid social interaction, because it shares a well-defined system of norms, values, meanings, and symbols (Aikenhead, 1996). The prestige and power associated with Western culture and its science often allows it to assume superiority in non-Western cultures. As a result, WMS can displace the local Indigenous knowledges, usually through assimilation or acculturation, causing some to label WMS as a "hegemonic icon of cultural imperialism" (Cobern & Aikenhead, 1997, p. 3).

Increasing numbers of Pacific tertiary students represent a demographic shift for the tertiary sector in Aotearoa New Zealand, compounded by a concentration of Pacific learners in Auckland's universities (Education Counts, 2018). This provides incentive to address teaching practices and learning environments so that they do not continue to hinder the successful engagement, enjoyment, and success of many Pasifika students (Benseman et al., 2006; Airini et al., 2010). In summary, the conceptual framework for this research brings to the fore the way in which alignment between learners' identity & IK, and the pedagogy & curriculum of their formal science learning is important and needs to be addressed in order to achieve SDG4. There is a significant gap in current research on learners' perceptions and experiences of this alignment, suggesting it is vital to determine, from students themselves, in this case, Tongan science learners, what it is that promotes their engagement, enjoyment, and success in their science studies.

Positionality

My decision to undertake this research, my choice of research questions and methodology were not instigated by merely seeing a gap in existing research but are all influenced by my own experiences and my relational positionality.

Fasavalu and Reynolds (2019) stress the importance of reflexivity when researching and working in the complex and diverse context of Oceania where many cultural understandings intersect. Therefore, as this research context was Oceania (a geographical region that includes Australia, Aotearoa New Zealand and the Pacific Island nations such as Tonga) and focused on Tongan science learners, it is important that I position myself before any discussion of the research process and of participants' voices is shared. I was born and raised in Aotearoa New Zealand where I identify as *Pākehā* (*te reo Māori* name for European descent), and in *Moana* contexts as *Pāpālangi* (Tongan for European descent). Growing up in the Pacific region, I have been exposed to, and influenced by, *Moana* ways of being and understanding. *Moana* peoples are an important influence on the culture of Aotearoa New Zealand; this culture has been informed by a diverse mixture of ethnicities, particularly *Māori*, the Indigenous people of Aotearoa, and more recent migrants from Europe, Pacific Island countries, Asia, and increasingly Africa and the Middle East. I am married to a migrant Tongan man, and live with our extended Tongan family and children. My ontological and epistemological thinking are shaped by my lived experience as a member of a Tongan family, my work in Indigenous education contexts, and my upbringing in Aotearoa New Zealand. Most of my own studies have been in the social sciences, yet my career has been spent primarily teaching science in higher education. As a result, I often experience stark ontological differences between my colleagues, particularly regarding the importance of relationships and which knowledges should be privileged and prioritised.

METHODS

The research questions were focused on the participants' experiences of science including one that informed the development of the model described in this article: Which teaching and learning practices encourage engagement, enjoyment, and success in science for Tongan science learners? To address this question, individual semi-structured interviews were conducted with 26 (16 female, ten male) successful Tongan students who shared their narrative accounts of specific experiences of their science education in Aotearoa New Zealand and the Kingdom of Tonga. All participants self-identified as Tongan ethnicity had successfully completed at least two Stage 1 university (or first year bachelor's level) study courses, and were either current students or recent graduates (in the last three years). While interviews were conducted in English, all participants were encouraged to use Tongan words or phrases if they wished.

While this research used semi-structured interviews, these interactions were heavily influenced by *talanoa*, in a form most akin to Vaioleti's (2011) *talanoa faka'eke'eke*. *Talanoa* is open conversation, *faka* is a prefix added to verbs, and *'eke* implies asking a question, allowing a participant of the *talanoa* to drive the questioning to uncover particular knowledge. Data was thematically analysed using a retroductive approach (Ragin & Amoroso, 2011). The analysis was informed by The Manulua Framework, which weaves four different theoretical-conceptual perspectives (critical realism, relationality through *vā*, the Multiscience Framework, and Tongan and *Moana*/Pacific methodologies) (Fonua, 2020b). One outcome was the development of a model in response to the participants' stories (all participants have been given a pseudonym), the *'Ulungaanga faka-Tonga Fonu* model, which is discussed below. First there will be highlights of some of the key sentiments/experiences shared by the research participants, in order to then demonstrate how these findings informed the development of the model.

Understanding Tongan Science Learners' Experiences

Considerable research (e.g., Nadal et al., 2011; Steele & Aronson, 1995; Sue et al., 2007) indicates that most ethnic minority students experience negative verbal and non-verbal interactions during their education. My research was no exception (Fonua, 2020b). For the participants, this negativity came primarily from their peers and teaching staff but also how they felt as Tongan learners in these institutional spaces.

There are very few university-level Tongan science learners; often only one or two in a class of hundreds of students. Ultimately, for those who are the "only brown person in class," their presence often represents the culmination of a challenging academic journey. Being an ethnic minority has impacted on the participants' experiences of the university teaching and learning environment which has subsequently impacted on their learning:

> students in my class say 'What are you?', and I say 'Tongan' and they expect me not to speak proper English... they say 'Are you doing a Bachelor of Arts?', and I say 'What makes you think that?', [they say] 'It's, you know…' and I say 'I don't know, I am doing Science'. I am not the only Tongan that [doesn't do] arts. We do all kinds of degrees… some other students prefer you not to do well or they think oh give it [until] next week, they won't be in class, they will be doing something else… I walk into my bio class, and there are times I am the only brown student. In other classes, there are three or four [of us], we are the only brown people… people give you a look like, I am sure you are in the wrong class, and we are no, I am enrolled here [laugh]. I am supposed to be here… (Kalala).

Being the 'only brown person' in their university science classes often made the participants feel responsible for perceptions of Tongan (or *Moana*/Pacific) students:

> When you walk around at uni, there are not a lot of brown people doing sciences. Being the only brown person in the room makes you feel inferior and scared, you have to prove something. When you get that notion into your head that you have to prove something…I have to beat this person, show we can be smart, and we can succeed in science (Mele).

Identity is formed by "an ongoing process of negotiation within multifaceted structural and agentic relationships" (Wong, 2015, p. 981). In other words, identity is socially constructed and continually informed and shaped by interactions with people (i.e., agents) and structures such as educational institutions. When the participants continually found themselves one of the few Tongans (or at times *Moana*/Pacific) students this often led to feelings of cultural isolation:

> It's not easy, it's hard…looking around and there's not many Tongans around …it makes you want to do something else sometimes (Vaea).
>
> It sucks, because…the people around me are fine, it's that there is no-one else who I can relate to in that way, you know how the Tongan culture and values is a bit different (Laulotu).

The participants often described feeling that they did not belong, some questioned whether they were academically capable:

> It's the whole stigma, being able to feel that you deserve to be there, you are constantly having to prove yourself because you are so different. ('Ana)
>
> I don't think it's easy [to study] science at university as a Tongan. There aren't many Tongans relative to everyone else, that makes it a bit harder, and sometimes your mind plays on you. You think there aren't many Tongans doing this, it must be hard for a Tongan to do this…sometimes I tell myself, this is out of your league, which is bad (Jake).

Interactions with peers and teaching staff are recognised as one of the defining influences on students' sense of belonging (Hoffman et al., 2002). Sense of belonging affects confidence, achievement, and cohort relationships; when students have a sense of belonging, they are more likely to be confident, achieve academically, and have positive relationships with their peers (Booker, 2016). The participants' stories shared above clearly indicate they struggled with their sense of belonging and they often found themselves questioning whether they were good enough to be studying science at university.

Embedding Tongan Knowledge into University Science Curricula

The participants were asked how they felt about the idea of including Tongan knowledge in the formal curriculum. Many of them were interested in the idea but there were some concerns. For example, one participant liked the idea of using Tongan knowledge to teach content, but felt that it contradicted with Aotearoa New Zealand society's perceptions of *Moana*/Pacific people:

> …if they did [use Tonga as an example], it would be cool...[but…you know how us Pacific Islands are always at the bottom of the spectrum? Why would they use Tonga as an example for something when they are going to teach that kind of stuff? (Laulotu).

The reasons for doing so would be precisely that, positively showcasing things acts to counter negative perceptions. A key aspect of my research is critical self-reflection of my teaching and how my practices have changed in response to the stories shared by the successful Tongan science learner experiences. A particular focus of my work is critiquing how relationships are valued in WMS education. The learners stories shared through my research, as exemplified above, affirmed that as a *Pāpālangi* educator, it is imperative I consider how I create equitable learning opportunities for students in the spaces in which I the teacher teach, an approach that aligns with Sustainable Development Goal 4's (SDG4) priority to "ensure inclusive and equitable quality

education and promote lifelong learning opportunities for all." To transform how society perceives diverse groups and challenge the dominance of particular knowledge systems (e,g, WMS) to the exclusion of others (e.g. IK) it is necessary to consider the use of specific examples and analogies and the value of using any teaching and learning opportunity to celebrate diversity and challenge stereotypes and assumptions, rather than perpetuating them.

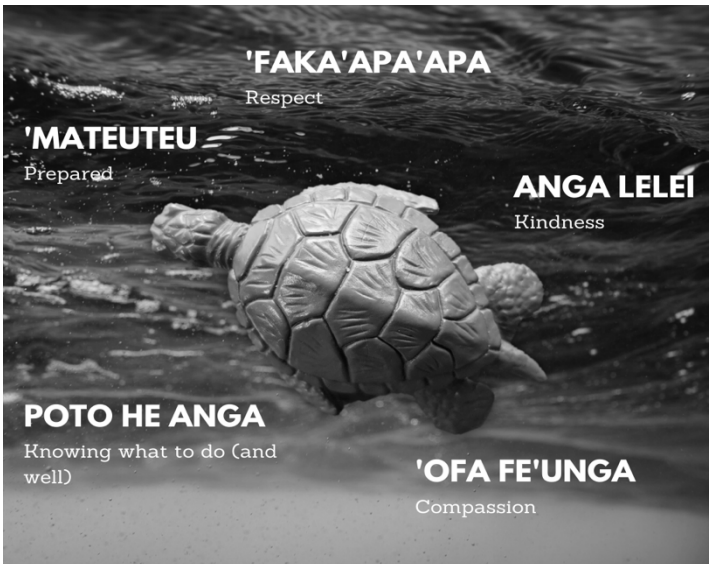
Doing so is an example of engaging with Oceanic ways, as captured in the *'Ulungaanga faka-Tonga Fonu* model. This model was developed through my research, informed by both the learners' stories and my critical reflection on my own teaching practice, and I have continued to apply it in my work and ongoing research. Following is the description of the model and shared insights from my own application.

The '*Ulungaanga faka-Tonga* Fonu Model

This model (see Figure 1, below) draws heavily on Vaioleti's (2006) work which describes five *'ulungaanga faka-Tonga* (Tongan behavioural characteristics) needed for effective *talanoa.* Visualising Tongan (and other *Moana*/Pacific) values in this way encourages explicit discussion and demonstration of them in my university teaching and learning spaces. It also recognises the importance of social connectedness, visible in Tongan (and other *Moana*/Pacific) culture in the practice of *tauhi vā* (maintaining of the relational space) that is particularly absent in science education. Embedding this model also displays my attempts to ensure my teaching is culturally sustaining, promoting the use of Tongan language in otherwise very western, English-language dominated spaces. I have written elsewhere about the need to "*Lalanga ha kaha'u monu'ia*" (*lea-faka Tonga* for "weaving together for a better future") (Fonua, 2020a). This model is a way to *lalanga* (weave) Tongan behavioural characteristics into these institutional learning spaces to make them more inclusive and equitable for all students.

Figure 1

The 'Ulungaanga faka-Tonga Fonu model: embedding Tongan values in teaching and learning spaces for effective teaching



The '*Ulungaanga faka-Tonga* Fonu Model in my practice

In Oceania, sea turtles (*fonu* in Tongan) are often sacred and have traditionally been important, especially in Polynesian chiefly society (Allen, 2007; Kirch, 1994). In parts of the *Moana*/Pacific, the ability of turtles to "transcend the boundary between the worlds of the land and the sea" has meant they have been likened to priests, including being able to communicate with the gods (Rolett, 1986, p. 87). According to Allen (2007), there is limited ethnographic evidence as to why turtles reached such an elevated status, she suggests that "turtles assumed such an elevated place in Polynesian cultures (as well as many Micronesian and Melanesian ones), [because] their habits of breathing, bleeding, crying, and tenaciously holding on to life, paralleling human characteristics, were probably important" as well as the reasonably unusual ability in animals of being able to survive in both water and air (p. 962). These 'habits' align well with those required by the participants' to achieve their goal of undergoing university-level science study. It was often a struggle to get through their secondary schooling, so breathing, bleeding, crying, and

tenacity are essential qualities. The conceptualisation of *fonu* existing in two worlds also speaks to the need for the participants to border cross the learning gap between the worlds of their family and their formal academic western world. The *fonu* in Figure 1 is one of my children's toys; I speak to this when I present the model in my classrooms as part of my positioning with respect to Tongan culture and what drives me as an educator - ensuring that my children and any Indigenous students do not have to conform to a Western system that does not acknowledge their ancestry in its entirety.

Ever since I developed it, I have used The '*Ulungaanga faka-Tonga Fonu* model to foreground these *'ulungaanga faka Tonga* in my practice and develop a type of 'contract' as to how we (the staff and students would all embody them and any other values identified by the students in the learning spaces. For example, all teaching staff would make sure we were prepared for all our classes to teach to the best of our abilities and to respond appropriately to situations that arose *(poto he anga)*.

From the participants' stories shared it is clear they have had to battle many negative interactions during their science journeys. I believe that employing visual references that explicitly connect with Tongan cultural ideas demonstrates this knowledge is valued where and when I teach. It also displays an attempt to ensure my teaching is culturally sustaining, promoting the use of Tongan language in otherwise very western, English-language dominated spaces.

I recently shifted from an Indigenous-led teaching context with only *Māori* and *Moana*/Pacific students to a non-Indigenous context. One thing that concerned me was how the things I had been learning about teaching and my practice would translate to this new space. I deliberated over whether or not to show the *'Ulungaanga faka-Tonga Fonu* model to my class of 300 students of mixed ethnicity (a tiny proportion of whom are *Moana*/Pacific). I was not sure

they would respond or how presenting Tongan values in this way would impact on any Tongan students in the class (i.e., trigger microaggressions or stereotype threat). However, I have learnt that I must always foreground the values of the learning spaces in the first interactions I have with my students before I have delivered anything else, signalling what I considered as acceptable and valued. Therefore, I showed the model in the first lecture and then again, a few weeks later.

Two months after I first showed the *'Ulungaanga faka-Tonga Fonu* model, a non-Indigenous student contacted me regarding concerns about noise levels in the learning spaces. They referred to the model, noting the importance I had placed on it, and asked me to remind students about their shared responsibilities *(faka'apa'apa, poto he anga*, and *anga lelei)* to ensure the learning space is respected. I believe this explicit discussion of values helped to build relationships and interactions and positioned me as a university educator who cared about students' learning experiences. It also demonstrated how non-Indigenous students can benefit from engagement with Tongan cultural value systems.

Other *Moana*/Pacific students have commented that that was the first time they had observed their own (or similar) knowledge presented during their degree. One Stage 3 *Moana*/Pacific student (with mixed *Moana*/Pacific ancestry, including Tongan) took a photo of the model in class and told me after that they had sent it to their Tongan father to show him that finally they were hearing about their own knowledge, in the last semester of their degree programme. Another Stage 1 student in their first semester contacted me after I showed the model in the first lecture to thank me as they had come into the lecture feeling out of place but they had been made to feel comfortable to be Tongan, they had found their sense of belonging.

If sense of belonging is prioritised, it makes the institution responsible for student success; "[s]tudents' success is in part predicated upon the extent to which they feel welcomed by

institutional environments and climates" (Johnson et al., 2007, p. 526). An example of institutional adaptation to diversity, thus addressing SDG 4, would be encouraging a shift in the learning environment so that it is learner-centred, an approach which is shown to aid in retention and completion rates (Zepke et al., 2006). The *'Ulungaanga faka-Tonga Fonu* model is an example of how learner-centred approaches encourage teaching staff to be inclusive, treat their students fairly, and welcome and value the diversity of their students' cultural capital (Zepke et al., 2006). This model demonstrates a way to make Tongan knowledge valued and visible so Tongan science learners could see themselves in the course even if the content is entirely based on WMS, creating opportunities that align with the 'inclusive and equitable' aspects of SDG4.

CONCLUDING COMMENTS

Appreciating multiple perspectives by including Indigenous knowledges into tertiary curricula challenges the hegemony of Western, English-language dominated science curricula (Hammond & Brandt, 2004) and has benefits for all students, their institution, and wider society (Thaman, 2003). In order to achieve SDG4 of "inclusive and equitable quality education and promote lifelong learning opportunities for all", educators and institutions must adapt to the diversity of their student cohort, particularly for minority students who are likely to have different cultural backgrounds to that of the institution and that of students from other major ethnic groups. One way to do so is to build students' sense of belonging, and subsequent success, by embedding and valuing their knowledges and ways of being.

I believe the explicit discussion of values driven by the *'Ulungaanga faka-Tonga Fonu* model helps with relationships and interactions and positions me as a university educator who cares about students' learning experiences. Presenting this model demonstrates the importance of behaviour in our teaching and learning spaces and generates an active discussion of expectations

and reasonings, rather than leaving our teaching and learning spaces to be considered as locations for content dumping or passive absorption. It also demonstrates how non-Indigenous students can benefit from engagement with Tongan cultural value systems, creating inclusive and more equitable learning spaces for all students.

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I would like to express my deep gratitude to the research participants for their generosity in sharing their stories. I truly understand how privileged I am to have heard these often-painful stories, and endeavour to recognise their importance by continuing to transform my own practice in response to what you shared so honestly with me.

Ethics

Ethical approval was given for this research by the researcher's own institution. Each participant completed a consent form before the research took place and was offered the right to withdraw at any stage. All participants were able to review the transcript of their interview and indicate parts that were never to be shared.

AUTHOR NOTE

Sonia Fonua works in the Faculty of Science, University of Auckland, New Zealand. Her research interests focus on ethnic disparities in education, ways to embed Indigenous knowledge in formal curricula and pedagogy, and developing effective teaching and learning methods for Indigenous and Pacific students. Her email is s.fonua@auckland.ac.nz

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Essay/Review

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International Graduate Students' Positionality in a U.S. Critical Multicultural Education Course

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ABSTRACT

This study describes the experience of four international students after taking a class in critical multicultural education at a predominantly white institution in the Midwest, U.S. Utilizing narrative inquiry and narrative coding to analyze students' positionality papers, the researchers found two overarching themes: (1) Prior Experiences and (2) Perspectives on multicultural identities, with several sub-themes. The first overarching theme, prior experiences, has three sub-themes that reflect students' identities in relation to their sociocultural backgrounds: (a) origin and national identity (b) family background and exposure (c) education and sociocultural experiences. The second overarching theme, perspectives on multicultural identities has five sub-themes that emerged from students' personal learning and through socialization: (a) race and ethnicity (b) religion (c) gender and sexuality (d) class and privilege, and (e) culture shock. We conclude with

a discussion of the findings and implications for this work.

Keywords: critical multicultural education, ethnicity, gender, race, religion, sociocultural identities

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INTRODUCTION

According to UNESCO, in 2016 the United States (U.S.) occupied the greatest number of international students studying abroad globally at 19.1% (Rose-Redwood & Rose-Redwood, 2019). Of course, after the election of U.S. President Donald Trump and his administration's restrictive policies, we saw a decline in the percentage of international students coming to study in the U.S. (Anderson, 2019; Johnson, 2020). It is more important than ever that we continue to conduct research that will help us foster culturally relevant classrooms for our international students in the U.S., especially during these precarious times (e.g., xenophobic immigration policies, COVID-19 and anti-Asian racism, etc.).The research confirms that international students encounter a number of challenges when studying abroad, such as "culture shock, loneliness, anxiety and economic precariousness" (Rose-Redwood & Rose-Redwood, 2019, p. 4). We also know that these experiences can vary greatly depending upon the social positionality (i.e., race, language, and culture) that these students embody (Rose-Redwood & Rose-Redwood, 2019). There is a need for research that explores cultural issues shaping international students' experiences that also take into account country of origin (Perez-Encinas & Rodriguez-Pomeda, 2019). Of interest to use as college teachers are how these experiences are reflected in coursework, specifically coursework pertaining to social identities, culture, and understandings of power, privilege, and oppression. For this research, we ask, *what are the experiences of international students in a U.S.-centric multicultural education course at a predominantly white institution (PWI)?*

LITERATURE REVIEW

International Students' Experiences from the Literature

There is much research that discusses international students' experiences across cultural differences at U.S. and Western universities. For example, in her research at a U.S. institution, Rose-Redwood (2010) found that international students believed that universities' international offices and diversity centers' efforts were just ceremonial and did not foster cross-cultural understanding among international students. Zhang and Zhou (2010) study also found that Chinese international students at a Canadian University had a difficult time adapting to local culture. They found friendship with local students helped them enhance their language and cultural experience which also enhanced their academic satisfaction. However, international students' academic satisfaction dropped when their perceived enacted identity gaps were created in the classroom. Further, they felt discriminated in the classroom when their expectations from classroom norms were violated (Zhang & Zhou, 2010). In addition, Townsend and Wan (2007) discussed that there is a relationship between multicultural experiences and cultural adoptions. They argue that it is both a big challenge and an opportunity for universities to acculturate incoming international students with diverse cultures and multicultural experiences. Students, especially from Asia, Latin America, the Middle East, and Africa, face severe challenges of acculturation in U.S. institutions. Many language barriers, academic challenges, sociocultural differences, and discrimination in classes and in jobs are common stressors that impact the social and psychological well-being for international students (Boafo-Arthur, 2014; Smith & Khawaja, 2011).

Most of the universities in the U.S. tend to foster predominantly white populations with a majority of faculty, staff, and students identified racially as White American. Therefore, international students from Asia, Latin America, the Middle East, or Africa might have little

experience meeting and connecting with people of color. They have also pointed out that stereotypical attitudes might be formed from White predominant media sources and further perpetuated by White colleagues in universities (Mitchell et al., 2017; Rose-Redwood, 2010). According to Mitchell et al. (2017), many international students already have a developed stereotyped perception of African Americans based on media and peer experiences. They found, "among the participants' reflections, many of the students discussed their learned perceptions about African Americans, and these perceptions were overwhelmingly negative, which is troubling" (p. 9). This finding illustrates the need for multicultural education as a necessary part of international student's curriculum. Moreover, Lee (2010) reports that students from countries not esteemed with wealth (i.e., the Global South) experienced more unfair treatment from faculty, staff and fellow students as compared to students from more wealthy nations (i.e., Europe) at PWIs with culture and language differences being some of the salient issues. Another study by Sato and Hodge's (2015) found that Japanese exchange students felt alienated, disappointed and unmotivated while engaging with U.S. American friends at college and felt marginalized in the classroom. Finally, Talley-Matthews et al.'s (2020) study regarding the experience Afro-Caribbean graduate student women at a PWI revealed that they felt like outsiders, lonely, unwelcomed, and racial and sex discrimination. Many Afro-Caribbean women also faced micro-aggressions such as everyday insults and indignities.

Contrary, there is a positive relationship between multicultural experiences and sociocultural adaptability (Townsend & Wan 2007). Mori, Inman, and Caskie (2009) also revealed in their research that instructors who exhibit more cultural competence and cultural discussion increase international students' satisfaction in professional psychology courses. Due to globalization and an increasing number of international students studying abroad (albeit declining

at this current time), many scholars believe that institutions should reform their approaches and facilitate the use of effective multicultural knowledge in the classroom. In addition, students should be pushed to discuss multicultural issues across global contexts (Stohry et al., 2021) which aids in reducing misconceived notions and biases for all students (Wells, 2008).

THEORETICAL CONSTRUCT

Multicultural Education: Conceptual Framework and Purpose

Multicultural Education (MCE) shares a long history within Western countries such as the U.S., Australia, and Canada (May & Sleeter, 2010). Stemming from the Civil Rights and Ethnic studies movements in the 1960s and 70s, by the 1990s' advocacy for MCE to be common practice for teachers within schools was promising, however, nearly three decades later, advocates of MCE are still fighting for culturally relevant curriculum to be common practice in schools. What's more, the 90's version of MCE led to a "liberal multiculturalism" that *uncritically* celebrated diversity through a "holidays and heroes" approach (Nieto, 1995).

Ultimately, MCE became an attractive solution to the "problem" of racial and ethnic diversity in schools, but the focus on *getting along* or learning to *respect differences* does not address larger structural inequality or power relations. In response to the limits of a liberal MCE, critiques of MCE from scholars in antiracist education, critical race theory, and critical pedagogy emerged (May & Sleeter, 2010). All of these theoretical frameworks are important when considering how theory and practice, or praxis, are manifested in teaching. Thus, May and Sleeter (2010) offer critical multiculturalism as a way to combine these important theoretical traditions that give credence to the roots of MCE. While we acknowledge the important origins of multicultural education from foundational scholars such as James Bank, Geneva Gay, and Gloria

Ladson Billings, for this research we focus on the critical developments within multicultural education, or what is known as Critical multicultural education (CMCE).

Critical multicultural education (CMCE) "gives priority to structural analysis of unequal power relations, analyzing the role of institutionalized inequalities, including *but not necessarily limited to* racism" (May & Sleeter, 2010, p. 10, *emphasis in original)*. Simply put, naming and actually challenging racism and other forms of oppression is a key component of adapting an CMCE approach. CMCE includes challenging power relations by identifying the "material, political, and ideological underpinnings of inequality" (p. 10). Within a CMCE approach, culture is understood to be contextual in how inequality is lived out daily by groups of people. Furthermore, "culture and identity are understood here as multilayered, fluid, complex, and encompassing multiple social categories…" (p. 10). One final important component of CMCE that is important for this research is the addition of internationalism. Most U.S. commentary on MCE seldom encompasses global perspectives regarding debates on race or culture or religion (Aronson et al., 2016). CMCE encourages reconsidering how we think about race, culture, and other intersectional identities through a global lens. The purpose of this research is to better understand the experiences of one cohort of international students in a U.S. multicultural education course that was co-taught by Amatullah and Aronson. Amatullah was born and raised in India and has diverse teaching experiences in Dubai, Qatar, and the U.S. She identifies as a female Muslim educator who teaches about diversity and foundations in education courses. She is passionate to study about issues of access and equity and finds ways to not only transform future educators' practices but also constantly reflect and refine hers. Aronson was the primary instructor on record. She identifies as a U.S. born citizen who is racially white and ethnically Latina. She's taught MCE for several years and is continuously looking for ways to improve her practice, especially in relation to globalization. Rind

is an international student from Pakistan, who is ethnically Asian-Pakistani, and Muslim. He is completing a PhD in Educational Leadership and interested in research related to MCE.

RESEARCH METHOD

To illuminate international students' experiences in a PWI and understanding of their own positionalities, this study employs an interpretivist discourse of research (Benton & Craib, 2010). Utilizing narrative inquiry, the authors explore stories of international students to "understand(ing) experience" through the telling of stories (Clandinin & Connelly, 2000, p. 20). Clandinin and Connelly (2000) posit, "narrative is both the phenomenon and method of the social sciences" (p. 18). Hence, narrative inquiry is addressed as a "phenomenon" with regards to the methodology exploring the lived experiences of international students, responding to the "what" of the research purpose, whereas as a "method" narrative inquiry answers the "how" of this specific research (Clandinin & Connelly, 2000, pp. 125-127). We do not claim subjectivity in our analysis here as we are positioned as critical scholars. Our positionalities matter just as much as our participants' do. Thus, the very nature of "interpreting" data involves our subjectivity. We continuously have reflected on our analysis throughout the process.

Clandinin and Connelly (2000) validate that "…experience happens narratively. Narrative inquiry is a form of [studying] narrative experience. Therefore, educational experience should be studied narratively" (p. 19). This study explores the narratives of four international students (out of 16 students) enrolled in a graduate level critical multicultural course during fall 2015 semester. These four international students reflected differing social identities including race, gender, religion, and national origin. All of the participants in this study were informed of this research and consented through the Institutional Review Board (IRB) protocol. See Participant Demographics in Table 1.

Table 1

Participant Demographics

Pseudonym	Major/ Degree Seeking	Race/Ethnicity/ National Origin	Gender Identity	Religion	Career
Ming Yang (MY)	Masters of Teaching	Chinese	Female	Christian	Teacher
Josh Victor (JV)	Masters of Education in Transformative Education	Croatian (White)	Male	Catholic	Basketball Player
Akio Fukui (AF)	Masters of Teaching	Japanese	Female	Christian/Budd-hist	College Instructor
Ally Benson (AB)	Masters of Education in Transformative Education	Canadian (White)	Female	Not disclosed	Teacher

As a part of the course requirements, students were required to write a positionality paper as their final project in the class within CMCE and other social justice scholarship. To analyze these narratives, we took up Saldana's (2012) narrative method of coding to make meaning of their positionalities. First, the positionality papers were analyzed based on Saldana's first cycle of narrative coding that included initial codes analyzing elemental methods, literary methods, and language methods. Then, the papers were analyzed using second cycle methods that integrated "analytic skills such as classifying, prioritizing, integrating, synthesizing, abstracting, conceptualizing, and theory building" (p. 58). Ultimately, this analysis helped frame our cross-case analysis themes as discussed in the following section.

RESULTS

Findings: Positionality Narratives' Themes

In this section, we will share the common themes that emerged from positionality narratives of four international students. Ally Benson, Akio Fukui, Josh Victor, and Ming Yang wrote from an auto-ethnographic perspective after taking a critical multicultural education course. Each of these students have their unique personal background and point of view on race, ethnicity, culture, social status, and language differences, but common themes also emerged from their background and discussion as students studying in the U.S.

During the cross-section analysis of the four stories, several themes emerged. Rather than analyzing each theme in isolation, we developed two overarching themes (1) Prior Experiences and (2) Perspectives on multicultural identities. Each broader theme has several sub-themes that are discussed below. It is to be noted that most of these themes are interrelated as one's identity is intersectional and fluid. Furthermore, some students provided a detailed account of their positionalities whereas some students were brief, hence the themes are presented accordingly.

Prior Experiences

In this theme, personal identity of students and their reflections are drawn from students' exposure to the world, their upbringing, their country of origin, their sociocultural experiences, as well as their privileges. These sub-themes entail how students have been nurtured to view the world and people of different races and cultures. We will discuss each sub-themes of participants separately in the following sections.

Subtheme 1: Origin and National identity

Origin country/birth country influences one's perspectives and how one views the world as evidenced within this theme. Ally's auto-ethnography positionality shed light on the differences to being born in an upper/middle class, English speaking, white western culture. She was born in a prestigious White English-speaking Canadian culture. She acknowledged her whiteness how this had privileged her in addition to her familial support, being able-bodied, and attractive. She further explained, "Unlike other People who are visible minorities, I do not have to prove my ability, integrity, and motive every time" (AB, p. 13).

Contrary to Ally, Akio, Josh, and Ming all had different perspectives based on their origin and national identity. Josh comes from a lower socioeconomic state in a very "Caucasian" society of Split Croatia. He was brought up in Catholic surroundings. He never felt there is a benefit of being "White" as given that through his perspective dominance in Croatia is based on family connections with the mafia and other types of corruption. Ming on the other hand has a complex identity given that she was born in China and later moved to Kenya when she was ten years old. Ming identifies as a non-White, middle class, heterosexual, Christian, cisgender woman. She highlights the traditional question international students are asked based on their looks, "where do you come from?" (MY, p. 2). When she tells people that she grew up in Africa, it shocks people until she elaborates that her origin was in China (her ethnicity) and that she was raised in Africa (geographic location). Such questions are what perplexes her to express her identity. Finally, the fourth student Akio Fukui was born in Japan, which she shared is considered a rationally homogenous nation that has 98% Japanese race. Unlike in the U.S. and other countries, Akio believed most of the people in Japan are middle class. She shared that in her previous experience she never felt privileged or underprivileged while living in in Japan, however, began to categorize herself into middle-class after moving to the States.

Subtheme 2: Family background and exposure

Like origin and national identity, family background also has a vital role in developing one's identity. Undoubtedly, it influences one's choices and perspectives about the world based on how one is raised, their socioeconomic status (SES) connected to privilege. A privileged family is in a position to offer a wide array of opportunities for their children that could support educational endeavors. Ally was reflexive about her family background and identified her class privilege. She believed her identity development and experiences were shaped mostly by the way her parents and grandparents who raised her. She also acknowledged she had the privilege of using the same Standard English Language taught in the classroom that she spoke at home. Her parents were supportive of her and her brother and she shared she was a "lucky girl." Akio had similar class privilege and a supportive family background. She remarked, "I was aware that there were people whose standard of living was lower than mine, and that my family was a little more privileged financially compared to most families" (AF, p. 3). She was surprised by the class categorization in the U.S. where some people live luxuriously with privilege, while others were extremely poor given her beliefs that Japan is uniformly made of middle-class families from her perspective.

The family background and exposure of Josh and Ming were different from Ally and Akio. In Josh's case, his maternal family was very well off before the war as his parents owned farmable land, cattle, sheep, a butchery, and a local inn. Despite these assets, since his parents belonged to a big family and they had many siblings, he clearly felt like his parents started from nothing. He felt pride in his Croatian ancestry and the Catholic religion was a big part of his upbringing. In Ming's case, she shared that she was born in China, where the communist party was dominant, so religion was "not allowed." Later her family converted to Christianity when they moved to Kenya. She shared that she was reborn in Kenya.

Subtheme 3: Educational and Sociocultural experiences

Educational and sociocultural experiences contribute or rather primarily shapes one's worldview and identity. Ally believed her Cultural Studies' class during her bachelor's program from a university in Canada offered her the opportunity to examine her positionality and identity. Interestingly, within her paper, she included her parents' and grandparents' identities as part of her formation. In addition, her role as a teacher, mother, and migrating to the U.S. significantly changed her perception of identity. She learned how her English-speaking family and Canadian born white identity did not experience as much difficulty in the U.S. as she confronted her skin color and language as privileges. Due to these courses, Ally was reflexive and acknowledged that structural dominances and privileges usually come at the expense of others' which goes unnoticed. Ming received her early education in Kenya during Catholic Church school. White skin color always mesmerized her partly because of the Chinese cultural beliefs that being white-skinned is associated with higher class rather than just race as evidenced in the U.S. Akio's educational and sociocultural experiences were episodic as she believed she had two lives: one childhood life in Japan and other adulthood while living in the U.S. She believed her positionality changed tremendously due to the contexts she was in that shaped her experiences. While Josh identified himself as a "White-like" Americans, he became aware of the little things that made a difference throughout his college career. He shared one outstanding realization that he had as a basketball player at our university: "my black teammates were 'randomly' drug testes quite frequently, while my name was never pulled out of a hat" (JV, p. 2). Even as an international student from Croatia, when in the U.S. his skin color granted him the privilege of not being suspicious of consuming drugs.

Perspectives on Multicultural Identities

The second overarching theme includes sub-themes based on students' understanding and perspectives on their multicultural identities, such as race and ethnicity, religion, gender and sexuality, class and privilege, and culture shock.

Subtheme 1: Race and Ethnicity

Race and ethnicity were two terms that are often used alternatively and are thought to be the same. However, we distinguished the difference in our class. Ally clearly differentiated the two and explained that ethnicity covers the historical aspects of culture and society, while race is based on skin color. Ally's understanding of race drastically changed from her studies in Canada to her studies in the US. She clarified that:

> While using the term 'racism' was absolutely necessary to be able to address issues of inequity, that using the term 'race' served to perpetuate a dangerous and discredited idea (Satzewich, 1989). Accordingly, individuals or groups were described as 'people with white skin' or 'people with clack skin; rather than shorthanded to traditional racial categories by using person-first language. (AB, p. 5)

Initially, in the U.S., she was hesitant and careful in using the word race which she felt highly discussed in the states. She also felt nervous to ask a question on the issue. When asked by a fellow student whether "racism is actually discussed about in Canada or if it just flies below the radar" (AB, p. 7), Ally was reflexive about her identity as a woman with the white skin she inhabits and the privilege of obliviousness it can facilitate. She further thought, "while it is an easier question to ask than answer, what I concluded is that racism is talked a little, but probably should be talked about more" (p. 7). She now discusses race more in order to acknowledge and support people of color.

Josh's point of view and understanding of racism was interesting. In his words,

> In our media [Croatia], United States is a country well-presented with an extraordinary image of the melting pot of all cultures and a place where racism goes to die… a country where people took refuge and ran from discrimination towards safety and equality, land of the free, home of the brave. (JV, p. 1)

However, after a few years of living and studying in the U.S., he learned the dominance of whiteness and grew to understand how he benefited from the system because of his white skin.

For Ming, whiteness based on skin color was related more to class rather than class. Her stay in different geographic locations (moving from China to Kenya) changed her complexion. She was socialized into believing whiter skin was more beautiful and shared she even used foundation creams and sun creams to keep her skin whiter. However, she believed her view about race, class, and gender changed over a period of time due to her experiences in different contexts. The experience of Akio was different from all other international students as she claims she's never experienced the issue of racism in Japan. So racial bias and stereotypes were not common in her experience. Nevertheless, during her time living in the States, she experienced racial "otherness." She doesn't believe it was oppressive in nature, but her difference was noticed. She clearly held onto a belief that Japan is an "advanced" country in its thinking on race and class that gave her a privileged stand and she never felt any racial oppression. She remarked, "If I did not grow up in a dominant group or if I were from a less-developed country, people might have interacted with me differently" (AF, p. 3). Further, her positionality paper did not show any concern for people who are oppressed due to racism.

Subtheme 2: Religion

While we have seen shifts in discussing sensitive topics such as race, gender, class etc., in U.S. society, religion is still a taboo topic that is less spoken about (Aronson et al., 2016).

Interestingly, despite the many other social identities shared, Ally did not share her religious identity. However, Josh, Akio, and Ming explicitly reflected on their religious beliefs as part of their identities. Josh was raised in a Catholic church and religion was always an important part of his family. Based on his experiences, Josh validated this notion on religion being an important part of Croatian families and stressed "that almost 90% of Croatian families with children over 20 years can say the same thing about their race and religion" (p. 2). Ming believed because she was born in China, as her parents belonged to the Communist Party; they were not allowed to have any religion. However, after her move to Kenya she and her family were baptized into the Protestant faith. She strongly believed that religion is as fluid as other identities. She argues that "we should talk about religion in the classroom because it is nothing too personal or controversial. Religion enters the school doors as it is embodied in us" (p. 4). For Akio, religion is perceived as a co-existing phenomenon, and they are "far from the 'all or nothing' stance" (p. 2). She explains:

> Japanese people practice these religions depending on occasions. For example, when a baby was born, his/her family goes to a shrine and a Shinto priest prays for the baby's good life. In Christmas, some people go to churches for Mass. When someone dies, a Buddhist monk holds a ceremony and chants for the deceased. (AF, p. 2)

Ultimately, she identified herself as a Buddhist, heterosexual and cisgender woman in Japan but she has experienced and interacted with shifts in her identity in the U.S.

Subtheme 3: Gender & Sexuality

As a woman, Ally had varied experiences at different points in her life. Her parents did not believe in gender norms. In her autobiography she reflects that due to her strong academic background, her ability protected her from sexism as she was never told that as a girl she could not succeed academically. However, down the road gender played a role in her career decisions. She

explained that her dream to become a physician subsided due to limited financial means, the amount of post-secondary study required, and that these long years come at the expense of motherhood period for many young women. Ally also narrated that gender intersected with her immigration status in the U.S. after migrating with her family. She elaborated:

> While I moved with full knowledge that it would likely be two years before I could work outside the home, I underestimated the effect that this would have on my life and identity. When I moved, I became introduced to others always with reference to someone else, as "Ally's wife," or as "John and Mary's mother." I felt a sense of loss, both of the actual work of teaching, which I loved, and of my autonomy, as I now had very limited access to environments in which I functioned as an independent person, rather than as a support of others in my family, who themselves had the benefit of also occupying independent spheres through work or school. Despite the knowledge that we had chosen this, the isolation weighed on me. (AB, p. 24)

Akio's did believe that gender oppression was still prevalent in Japan and although changes have been made it was still salient. She felt entirely different in the U.S. as she witnessed men and women were employed and shared household chores irrespective of gender. She also explained that she has never seen LGBTQA people in Japan around her except in movies. However, in the U.S. she was more exposed to LQBTQA people in real and believes to have different layers of oppression. While she respects LGBTQA community, she admits that the life of straight person is much easier.

In Ming's reflection on gender and sexuality, she explained her views originated from Chinese Confucious culture, which is patriarchal and unequal; but also recognizes Chairman's Mao's communist theory that established gender equality and elevated women's status. She

expressed her concern for LGBTQA oppression in the U.S. based on sexuality and believed in order to eradicate this issue there should be LGBTQA education from early years in school. Of importance, the only male-identified student in our study, Josh did not discuss his perspectives on gender and sexuality in his autobiography.

Subtheme 4: Class and Privilege

As discussed in the experiences section, Ally clearly identified her privileges in her autobiography while expressing her intersectional identity. Being in the middle class, she has the resources to travel, obtain a better education and other cultural enrichment activities. In addition, she met with people from other countries and experienced their way of life and thinking. She further added access to finances and cognitive resources together shape one's life. She argues that class is often equated with "physical capital" rather than "symbolic capital" (AB, p. 15), and that her parents focused on the latter by providing necessary skills that enable oneself to function effectively in a middle-class community. Like Ally, Akio also felt privileged herself. She noticed class oppression in the U.S. when her children started schooling. She learned about additional support that U.S. schools offer for lower SES families with free/reduced meal plan and/or other scholarship programs to support their educational expenses.

Josh narrated his experiences that most variance if not all in the student population he witnessed were based on the socio-economic status of a certain family. The post-war era in Croatia resulted in most families living in low or lower-middle-class standards. He identifies his intersectional identity of Whiteness and SES, further acknowledging his privilege. He remarks, "even though my family would be considered poor in the U.S., I am still raking in the benefits and privileges that come with my skin color whether I like it or not" (JV, p. 6). For Ming, whiteness was associated with class more than race as people with dark skin were perceived as poor due to

their outdoor work in the fields rather than upper class people who did prestigious indoor jobs. She acknowledged her middle-class status and that she never had to worry about her survival.

Subtheme 5: Culture Shock

Similar to trends in the literature, often international students experience culture shock when they move to the U.S. (Wu et al., 2015). Ally's detailed autobiography also addressed the culture shock she experienced despite being a White Canadian in the U.S. context. She wrestled with her preliminary thoughts that U.S. and Canada were not really that different and demystified this notion. She expressed, "I had unconsciously generalized my single experience so far, and so was caught off guard when, in my new role as a Canadian student discussing education and multiculturalism in the United States, I felt more alien than I had ever before" (AB, p. 4). Given Ming's previous experiences of moving, she learned how to adjust to new cultures and felt ready to deal with cultural shock. Her tri-cultural background and bilingual skills helped her assimilate into the U.S. context more quickly. However, she felt she took on different identities when she communicated in different languages [English and Chinese]. Yet, the struggle to acquire a social identity always remained. For Akio, the cultural shock was when she learned about the class system in U.S. unlike Japan where she believed all belong to one middle-class. The class system shocked her the most when she realized that many people were less privileged than her in an advanced country like the U.S.

In closing, the auto-ethnography of four participants showed that each student has a unique personal background and perspectives on multicultural identities. The student's country of origin, language, family orientation and exposure play a vital role in shaping perspectives about multiculturalism. Overall, from these four autobiographies, it is evident that in the U.S.,

international students maneuver their educational journeys based on their positionalities that shape their experiences.

DISCUSSION

Given what we have learned from these four participants, it's important to consider how educators discuss (C)MCE in a U.S. context with international students. Just as our domestic, U.S. born students learn to navigate understandings of differences around issues related to race or class from their own experiences, so too do international students navigate this through the transnational experiences they bring with them. This begs the question that when teaching about CMCE, are we meeting the needs of the international students in our classes who might conceptualize issues around "race" differently than American students because of the ways that "race" is taken up differently in different contexts? What the U.S. typically considers issues of "race" in one context, might be conceptualized as issues pertaining to empire, nation, or tribe in another global context (L. Weems, personal communication, Nov. 2019).

This was clearly evident in much of Akio's analysis of her own lived experience in Japan suggesting that there were no issues of racism or classism in her home country. Even though much of the conversations around racism in our class were situated in a U.S. context, we importantly missed an opportunity to teach about the globalization of white supremacy (Allen, 2005) and specifically the way this impacts Asian cultures (Stohry et al., 2021). There is a legacy of Japanese imperialism and discrimination across Asian ethnicities such as ethnic Koreans (Fujitani, 2007). Akio was basing her understanding of race solely on her own experiences and not connecting this to a larger body of historical knowledge. This might be similar to the way many white U.S. students believe that we live in a "post-racial" society after the election of Barrack Obama in 2008. Akio

was only able to think about a racial hierarchy in relation to discrimination when she came to the U.S. and experienced "othering" for the first time.

As a Chinese woman, Ming on the other hand was able to recognize racial skin privilege after relocating from China to Africa. Her analysis of whiteness was intensified from her lived experiences that directly contrasted with Akio's lived experience. Given this example, we recommend an CMCE curriculum built upon the experiences of the students in the class. Having taught CMCE for several years, Author 2 often works with several foundational readings that are important to understand CMCE as a field, but we believe there should be a part of the curriculum left open that would cater to the students in the classroom. This is not meant to single out international students, but rather create a more culturally relevant curriculum that makes connections across students in the classroom.

Additionally, we also learned from our students that the media had influenced their perceptions about race in the U.S. This provides another implication within the CMCE classroom that should encourage instructors to be prepared for the misconceptions that international students might bring with them related to racial classifications in the U.S., including stereotypes of different racial groups. Joanou (2017) discusses the role critical media literacy can play to foster a critical approach among students in understanding multicultural dimensions like race, class, gender, and sexuality within and outside of the classroom. Often popular media culture romanticizes dominant groups and conveys the deleterious message about minority groups in the U.S. However, using a critical media approach might encourage students to critique the stereotypes they hold. We suggest using current media in the classroom and incorporate activities that encourage critical analysis of popular culture such as the documentary *Reel Bad Arabs: How Hollywood Vilifies a People* (Earp,

2006), which we used to unpack the representation of Arab peoples in film and the misconception that all Arabs are Muslim and vice-versa.

Ally was the only participant who was able to address her multiple intersecting identities and did this in such a way that recognized her privileges. This is especially important when considering the role that nationality and ethnicity hold across global contexts. Had Victor been able to think about himself through an intersecting lens, perhaps this would help him to consider a gendered analysis that he left blank. He did acknowledge the privilege of his white skin in relation to the Black basketball players' treatment on his team, but he did not recognize other ways that his gender might have privileged him in his geographic context of Croatia. This might have provided him a more well-rounded understanding of how privilege and oppression work so that he could find ways to use his privilege to promote social change.

IMPLICATIONS AND CONCLUSION

In closing, this study illuminates international students' experiences in a PWI from their own positionalities utilizing narrative inquiry. The cross-section analysis of four international students' positionalities reveals two overarching themes (1) Prior Experiences and (2) Perspectives on multicultural identities and several sub-themes such as origin and national identity, family background and exposure, education and sociocultural experiences, race and ethnicity, religion, gender and sexuality, class and privilege, and culture shock. The discussion of the findings and implications for this work emphasizes that it is not only important for students to understand the need to discuss their identities through an intersectional lens but also how educators discuss CMCE issues in the U.S. context with international students.

AUTHOR NOTE

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Exploring the Disparity of Minority Women in Senior Leadership Positions in Higher Education in the United States and Peru

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ABSTRACT

In this essay, the author compares and contrasts accessibility to higher education senior leadership for women in the United States and Peru. This paper addresses the disparity and challenges of women in higher education senior leadership focusing on minority women such as indigenous and Afro-Peruvian women in Peru and women of color in the United States. The author further calls for empirical research on the character traits, career path, motivations, definitions of success, and challenges of women who serve in executive higher education leadership positions. This paper further contributes to the field of comparative and international higher education, both domestically and abroad, while addressing demographic challenges such as sex and race for women in and seeking higher education administrative leadership career goals.

Keywords: gender disparity, higher education administration, higher education leadership,

indigenous women, leadership, minority women, Peru, United States, women leaders

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WOMEN IN EXECUTIVE MANAGEMENT ROLES

In recent decades women have become an increasingly important part of the labor force as women make up 38.74% of the labor force globally (World Bank, 2020 a). In the United States and Peru, the percentage of women in the workforce was 46% and 45.7%, respectively, in 2020. Further, a growing number of women now have access to higher education and, in turn, are assuming more substantial leading roles in the educational, social, and economic activities of their respective countries. According to the Grant Thornton International Business Report [IBR] (2020), globally, women hold 29% of senior management roles in various industries. In 2015, approximately 35% of management positions in Peru were held by women (International Labour Office [ILO], 2017). In the United States, the rates were slightly lower, as only 26.5% of executive management positions are held by women (Catalyst, 2020). Three percent of registered businesses have a woman as the president of a board of directors, and only 4% have a female CEO in Peru (Jáuregui & Olivos, 2018). As of December 2020, women only held 6% of the CEO positions in the S&P 500 companies in the United States (Catalyst, 2020). Although women are breaking gender barriers, the "glass ceiling" still exists in several countries, economies, industries, and organizations.

Breaking Glass Ceilings: Limitations of Minority Women in Leadership

In Peru and the United States, women are gender minorities; however, ethnic minority status would vary based on geographic location. In Peru, ethnic minorities are identified as the indigenous, native people of the rural Andean and Amazonian regions (Del Aguila, 2016) and the Afro-Peruvian people, the brown-skinned descendants of slaves brought to Peru by the Europeans

that are concentrated in the coastal cities (Benavides et al., 2006). Although the percentage of women in Peru's workforce is steadily climbing, few women are in executive leadership positions (Jáuregui & Olivos, 2018), yet even fewer minority women in those roles (Del Aguila, 2016). Alas, tracking women in various leadership positions has proven challenging over the years as Peru does not have a systematic method of gathering racial or ethnic identities (Matute, 2020).

Afro-Peruvian and indigenous Peruvians have been severely limited in their ability to serve in leadership positions in government, business, education, and the military (Minority Rights Group International, 2018). According to the Center for Development of Black Peruvian Women [CEDEMUNEP], Maria Zavala Valladares was identified as the first Afro-Peruvian woman appointed to a presidential cabinet as minister of Justice and Human Rights (Matute, 2020), as well as having served as President of the Superior Courts of Lima and Loreto. There have been five Afro-Peruvian women elected to congress since the year 2000 (Matute, 2020), of which three of those were elected in 2014 (Htun, 2016). Regarding employment and economic activity, 41.95% of indigenous women are employed in the agriculture, livestock, hunting, and forest industry, with 21.73% following in the retail industry (Del Aguila, 2016), not leaving much room for executive leadership advancement.

In the United States, ethnic minorities are all of those encompassed as non-white. Much like in Peru, based on one's position in history, discrimination-based privilege has allowed for easier access to leadership and career success for specific groups. In 2019, 32.3% of management positions were held by White women, whereas only 4%, 4.3%, and 2.5% were held by Black women, Latina women, and Asian women, respectively (Catalyst, 2020). To date, there have only been two Black women CEOs of Fortune 500 companies, and as it stands, there are only two other women of color currently on the list. Minority women, when given the opportunity, are excelling

in their various leadership roles. For instance, Marcelite J. Harris was the first Black woman to become a Major General officer in the United States Military in 1995 (Najarro, 2018). That was no small feat, as even today, women are not openly welcomed into the military. Dr. Ellen Ochoa's brilliance and resilience radiated as she was the first Hispanic woman to go into space as a National Aeronautics and Space Administration [NASA] astronaut. She currently serves as the first Hispanic female Director of the Johnson Space Center (NASA, 2012).

Scholars and business professionals agree that more needs to be done to advance women to senior leadership positions in all sectors and industries, specifically, underrepresented women of color. Therefore, this comparison piece explores the disparity of minority women in leadership positions in four-year public universities in the United States and Peru to stimulate the pipeline of leadership development for women of color both domestically and abroad.

Women are Catalysts for Change

There has been a great deal of emphasis placed on the need to increase the number of women in higher education administration positions in colleges and universities based on the equity of civil rights (Eddy & Kirby, 2020). Advancing diversity and inclusion initiatives in higher education is paramount and starts with ethnic and gender minorities accessing leadership pipelines and being granted their earned seats at tables of power. This is the case in the United States (Ford, 2016) and Peru (Guerrero & Rojas, 2019). In developing countries such as Peru, however, women's rights are still in their infancy stages, such as being granted basic citizenship and the right to vote, joining the workforce, and obtaining an education. These factors have impacted the career options and leadership accessibility in all industries and occupations for the women of Peru and the United States. Women have fought tirelessly for decades for equity and equality, and so on the battle rages.

DEVELOPMENT OF WOMEN'S RIGHTS IN PERU AND THE UNITED STATES

Peruvian women were not granted the right to vote in national elections until 1955. Peruvian women's citizenship was based significantly around their domestic roles as wives and mothers leaving them the second-longest disenfranchised female population in Latin America (García-Ponce, 2017). There was no evidence that minority women in Peru were further disenfranchised and limited in their voting rights based explicitly on their ethnicity. However, socioeconomic status [SES], occupation, and literacy criteria in place were just as foretelling and intersected with race (Cozart, 2017).

With the passing of the 19th amendment, White women in the United States were granted the right to vote in 1920 (U.S. Const. amend. XIX); however, much like the legislative reform of the early 20th century, it discriminated against people of color. Black and brown Americans were harassed, beaten, and killed as they fought for citizenship and their right to vote for many years. The Voting Rights Act of 1965 was the start of U.S. legislation to ban racially discriminatory practices preventing minorities from voting in the United States; however, words put on paper take several years to put into practice.

Peru is a historically patriarchal country, yet the 1990s introduced legislative reforms that dismantled outdated, customary laws granting Peruvian women more rights to the workforce, access to banks and financial institutions, and the ability to own and inherit assets. Approximately 43% of women participated in the labor force in 1990 compared to 70.58% in 2020 (World Bank, 2020 b). Though women are now participating in Peru's economy via the production of goods and services, they are paid considerably less than their male counterparts. It is of further discouragement that women's participation is limited due to work/life imbalance and the "unequal burden of domestic responsibilities" (Nathan Associates Inc., 2016, p. 5).

World War II ushered in a new era for American women in the workforce as their involvement grew exponentially. Between 1940 and 1945, women's participation in the workforce increased by 50% (Goldin, 1991). In 1980, 53.1% of Black women, 47.4% of Hispanic women, and 51.2% of White women were active in the U.S. labor force compared to the 59.4% of Black women, 55.8% of Hispanic women, and 56.3% of White women in 2016 (U.S. Department of Labor, 2020). Although participation has increased, women's gender pay gap is far more disparaging for women of color. Whereas White women earn 79 cents to every dollar earned by a White man, Black women earn 63 cents, and Hispanic women earn 55 cents of the same dollar (U.S. Census Bureau, 2020).

Recent years have yielded a reverse in the gender gap in Peruvian higher education for women as they have been enrolling at higher rates than their male counterparts since the mid-2000s. The increase has been significant as men's enrollment compared to women was 12.793% vs. 6.818% in 1970 and 17.112% vs. 8.275% in 1975. The early 2000s indicated some leveling out, yet women started to inch past as enrollment rates were approximately 30% for each group. By the mid-2010s, women’s enrollment rates had surpassed men’s; 73.6% vs. 68.7% in 2016 and 72.7% vs. 68.7% in 2017 (UNESCO, 2021; World Bank, 2020c, 2020d). Benavides et al. (2018) discussed the increased challenge that darker-skinned Afro-Peruvians faced in their attempts to access higher education than their fairer-skinned brethren due to the ongoing discrimination of colorism and social stratification in Peru.

In the United States, higher education enrollment rates have changed drastically over the years for women, and more specifically for women of color. Data from the National Center for Educational Statistics [NCES] (2019) shows that in 1980 White males reported the highest enrollment rates in higher education institutions, followed by White women at 26.3%; Black

women ranked third at 20.9%, and Hispanic women were fifth at 16.2%. By 2018, the top three enrolled groups were White women at 45.4%, Black women at 40.9%, and Hispanic women at 40.4%. There is much to be said about the *American Dream*, migration, and educational reform in the United States; however, that is a different topic for a different paper.

As women's rights began to emerge, so did their opportunities for a better life. For women in the United States and Peru to vote, own land, handle financial matters, join the workforce, and obtain a formal post-secondary education, leadership opportunities were now becoming attainable.

College and University Educational System Structures in Peru and the United States

The education structure in Peru is similar to the structure of the United States education system. Peruvian higher education institutions offer bachelors, masters, doctorate degrees, and professional certificates for those pursuing professional specialties (Levy, 1986; Paulston, 2014). Academic freedom and institutional autonomy are also fundamental principles among U.S. and Peruvian colleges and universities. On the other hand, differences lie in governance. In Peru, the National Superintendence of Higher University Education [SUNEDU] is the technical body under the Ministry of Education responsible for licensing, quality assurance, and supervision of university higher education services. The National Assembly of Rectors [ANR] was the previous the governing body that was responsible for the promotion of scientific, educational, cultural, and economic cooperation between universities and fostering dialogue within and between national and international organizations (Anicama & Livia, 2015; Butters, Quiroga, & Dammert, 2005). Thus, the move to SUNEDU will promote consistency in the quality of education across institutions of higher learning in Peru (del Carmen Arrieta & Avolio, 2020). In the United States, the state has more governing authority in which authority is delegated to boards and councils. However, universities' authority generally lies within an individual, such as a president or

chancellor in the United States or a *rector* in Peru and other Latin American countries. The term *rector* that translates into the word "ruler" refers to the highest university administrator or leader in Latin America and a few other countries (Merriam-Webster, n.d.). There can also be vice-rectors along with deans that serve as higher education administrators and leaders. These positions mirror those of vice-presidents, provosts, chancellors, and deans in American colleges and universities.

CAREER ATTAINMENT IN HIGHER EDUCATION SENIOR LEADERSHIP IN THE UNITED STATES AND PERU

The following sections briefly explore women's higher education senior leadership career attainment in the United States and Peru. The author discusses women's transition into the roles and the disparity and challenges minority women have faced in seeking these leadership roles.

American Women in Higher Education Senior Leadership

In the United States, even with the increased statistics on enrollment, women are still underrepresented in the academy and higher education leadership in general. A partial explanation of the disparity comes from the clear challenges and experiences that women have faced. With that said, women of color are still far less represented and have less access and opportunity in the world of higher education leadership (Davis & Maldonado, 2015).

Women's access to serve in higher education senior leadership has been delayed; however, progress has been far more expeditious than in other countries (Featherman, 1993; Lapovsky, 2014). The first woman appointed to a college senior leadership position was Frances Willard of Evanston College in 1871 (Tisinger, 1992), far before minority women were permitted to attend college. Women of color were only represented at minority serving institutions [MSIs] such as all women’s schools or specific ethnic serving schools such as Mary McLeod Bethune, founder of Bethune-Cookman College in the early 1900s. Black women truly began taking their place at the

table of higher education senior leadership after Dr. Shirley Ann Jackson became the first Black woman to serve as a president of a national research university in 1999 and Dr. Ruth J. Simmons became the first Black woman appointed president of the Ivy League, Brown University in 2000 (Chance, 2020).

Although there is still a disproportional number of male vs. female senior leaders of colleges and universities, the emerging changes in this field are allowing women to make strides. Older White men have historically and traditionally dominated higher education's senior-most administrative positions of chancellor or president (Chance, 2020). According to the American Council on Education (ACE, 2017), women accounted for 30% of all presidential positions in 2016. However, of this 30%, only 9% represent Black women, and 4% Hispanic women than the 83% who are White women. Native American women have had an even slower ascent into higher education senior leadership. Dr. Cassandra Manuelito-Kerkvliet was the first Native American woman appointed to serve as the president of an accredited college outside of the tribal system in 2007 (Minthorn & Chavez, 2014). Minority women as senior leaders have been limited to serve almost exclusively at community colleges, MSIs, and lower-ranked, less prestigious schools that are not financially endowed, athletically ranked, or valued for research development (ACE, 2017; Featherman, 1993).

Thus, the barriers and obstacles minority women in the U.S. higher education administration face are personal and systemic. Furthermore, having limited role models can deter younger minority women from seeking careers in an area where they anticipate feeling marginalized and oppressed. As such, advancements can be made for women of color in higher education senior leadership.

Peruvian Women in Higher Education Senior Leadership

Unlike the United States, women's access to higher education administration as a career has been restricted to a few isolated cases in Peru. Although few and far between, these cases are positively viewed as "the first results of a lengthy maturing process which got off to a late start" (Zamora, 1993). Even today, only 18% of public universities in Latin American regions have women in senior leadership as rectors (UNESCO IESALC, 2020).

Few studies that discuss the roles, characteristics, and leadership styles of Peruvian women administrators of higher education have been found while reviewing the existing literature. This disparity is due to the small number of women in these positions and relative newness to the Peruvian culture (Zamora, 1993). Recent inquiry via internet search revealed that of the more than 100 universities in Peru, there are only three female rectors currently in place. Although Peru's university system has significantly expanded over the past 50 years, expansion does not apply to all leadership levels. Peruvian women were not taken into account in the reformation, modernization, and expansion of Peruvian universities. Women were not even admitted access to Peruvian universities until 1908 (Stromquist, 1992). It would appear that progress is a very slow process for Peruvian female leadership, such as the first woman elected to rector's position was Dr. Ilse Wisowsky in the late 1980s at the University of Lima (Zamora, 1993).

Traditionally, positions of leadership and higher education administration in Peru have been delegated to men. Stromquist (1992) described Peruvian universities as "bastions of male power" and shared the thoughts of a fellow feminist that "universities are male institutions with women in them" (p. 78). Women have made significant gains in access to higher education administration; however, they are a long way from having equal representation at the highest levels of university leadership (House, 2001). Furthermore, based on the persistent challenges of

indigenous and Afro-Peruvian female visibility in leadership ranks within and outside of higher education, no minority women reported having served in university senior leadership roles. Undoubtedly, stereotype based discrimination still drives people's thoughts and behaviors in the workplace and leadership positions. Kogan (2017) shared that hiring professionals indicated preferences for hiring lighter-skinned people based on assumptions that Afro-Peruvians lacked basic professional inclination, cultural, and social competency for compliance in the workplace. These thought and behavior patterns present at all hiring and employment levels, specifically when there are intersections of sex and race (Rattan et al., 2019).

DISCUSSION AND CONCLUSION

Peruvian and American women in higher education administration have been subject to similar obstacles in advancing leadership, as evidenced by their gradual development of rights. Obstacles associated with racial and gender biases (Featherman, 1993; Zamora, 1993), gender-pay gap (Hill, 2014; Rossini & Jauregui, 2012), work-life imbalance (Rossini & Jauregui, 2012; Zamora, 1993) and lack of role models and leadership requirements (House, 2001; Lapovsky, 2014; Rossini & Jauregui, 2012; McIntosh, 2011) have been examined given their relationship to leadership development. However, as the numbers of women at this level of leadership in Peru are scarce, there is little to no research in this area.

To further examine the disparity of minority women in higher education senior leadership in the United States and Peru, advanced research is needed to investigate the character traits, career paths, motivations, definitions of success, and challenges of women who serve in senior leadership positions. As a potential starting place, appendix A presents a concept map comparing minority women in higher education senior leadership in the United States and Peru. With encouragement and support, increased numbers of role models, early leadership experiences, and development,

women in Peru and the United States can advance higher education administration (Lapovsky, 2014). There is still much to learn of these women's various roles and leadership characteristics and use that to help increase women in leadership globally. With the minimal amount of empirical research on this culture and population, there is a need for further inquiry and investigation. This paper opens the doors to a potential cross-cultural study investigating higher education, both domestically and abroad.

AUTHOR NOTE

Dr. Nuchelle L. Chance is a social activist, educator, academic, scholar, mentor, advocate, and leader. Her research interests are Social Cognition, Sex and Gender Differences, Women's Studies, Race, Learning, Memory & Recall, Perceptions & Attitudes, Consciousness & Awareness, and Leadership. Dr. Chance is increasingly motivated to inspire young minority girls and women to strive for leadership development while promoting an advanced education. She continues to fight, support, and advocate for all underrepresented, marginalized, and oppressed groups using her platform, being unapologetically and unabashedly vocal and visible on social justice matters.

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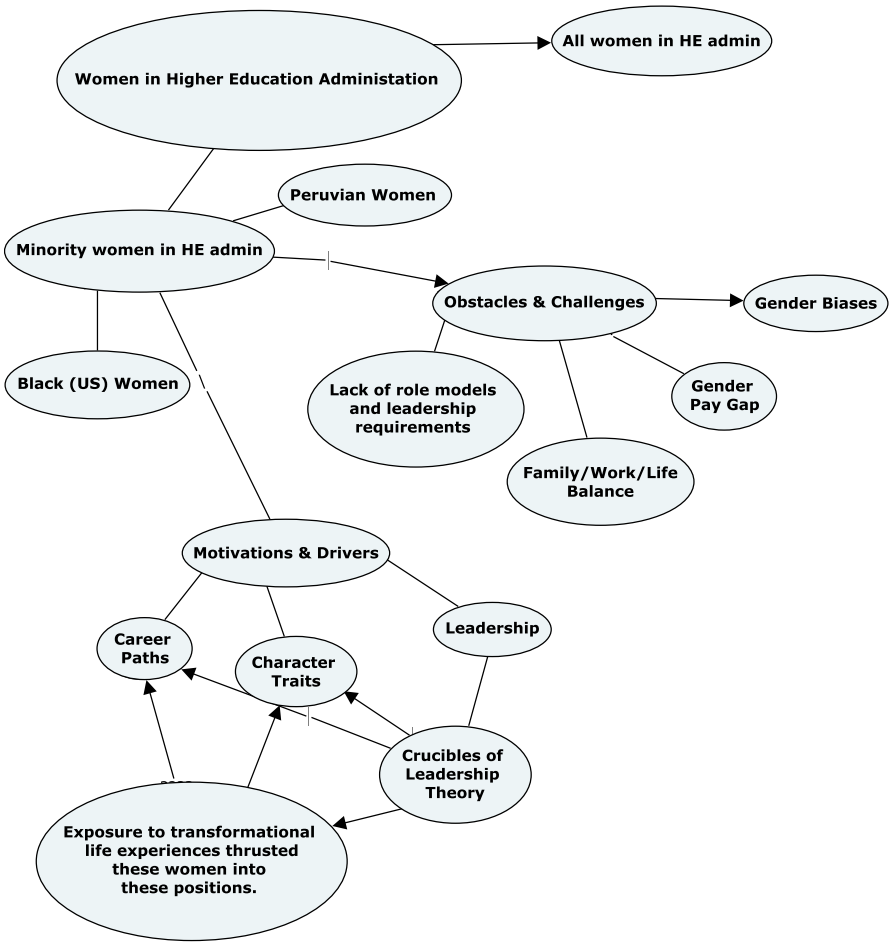
APPENDIX A: CONCEPT MAP



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Peculiarities and Paradoxes of Neoliberal Higher Education in Kazakhstan

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ABSTRACT

This article discusses the expression of neoliberalism in Kazakhstan's emerging higher education system. The central tenets of neoliberalism are briefly articulated. Noted is the phenomenon that the general political-economic paradigm of neoliberalism differs in its specific implementation depending on the particular countries and cultures in which it is manifesting. In Kazakhstan, neoliberalism's expression in the former Soviet Republic's emerging higher education system presents five paradoxes: (a) nationalistic globalism, (b) regulated non-regulation, (c) giving as a means to getting, (d) communal individualism, and (e) developmental demise. This article explores each of these five paradoxes.

Keywords: higher education, Kazakhstan, neoliberalism, paradox, policy analysis

INTRODUCTION

Neoliberalism, which is arguably the globally dominant political-economic paradigm in the Post-Cold War era, has central tenets such as free markets, free trade, privatization,

deregulation, individualism, rationality, competition, meritocracy, low taxes, small government, and unfettered accumulation of individual wealth (Harvey, 2005; St. John et al., 2018; Steger & Roy, 2010). As Margaret Thatcher (1925-2013), former Prime Minister of the United Kingdom (1979-1990) and neoliberal spokesperson averred in 1987: "There's no such thing as society. There are individual men and women and there are families." Forget about the common good. Ronald Reagan (1911-2004), former President of the United States (1981-1989), had similar comments under the guise of advocating for small government, notwithstanding his ballooning deficit spending. Reagan and Thatcher had chemistry and were a dynamic duo in the Post-Cold War ascendency of neoliberalism in Western democracies and formerly communist states.

Although neoliberalism is a singular political-economic paradigm, the way in which specific countries adopt neoliberalism has its peculiarities. For example, neoliberalism in the United States looks differently than neoliberalism in Russia. In Kazakhstan, a former Soviet Republic, the policies and practices of neoliberalism involve paradoxes. This study uses grounded theory as a methodological approach to analyze the official speeches of former President of the Republic of Kazakhstan Nursultan Nazarbayev (1991-2019) and policy texts to advance higher education in Kazakhstan. A flexibility of grounded theory is that it allows researchers to utilize various data sources, including documents (Charmaz, 2006, 2011; Ralph et al., 2014). The NVivo software program was applied to code and analyze five sources of texts: (a) *Organization for Economic Co-operation and Development Report, 2017;* (b) *Strategy Kazakhstan, 2050*; (c) speeches of former President of the Republic of Kazakhstan Nursultan Nazarbayev from 1994 to 2020; (d) *Nazarbayev University Strategic Development Plan, 2013-2020*; and (e) *Law on Education, 2007*. In this comparative analysis, we discuss five of Kazakhstan's neoliberal paradoxes within the context of its emerging higher education system: (a) nationalistic globalism,

(b) regulated non-regulation, (c) giving as a means to getting, (d) communal individualism, and (e) developmental demise.

NATIONALISTIC GLOBALISM

Neoliberalism is not intrinsically nationalistic. It is the preferred political-economic paradigm of global corporate interests. A peculiar paradox of Kazakhstan is that, without using the word "neoliberalism," its tenets are promoted nationalistically as a way for Kazakhstan to prosper as a country by transitioning from a resource-based economy to a knowledge-based economy. In articulating the strategy of Kazakhstan's development to 2050, former President Nazarbayev stated:

> Kazakhstan's oil and gas complex remains the powerhouse of our economy, which facilitates the growth of other sectors. We have successfully created a modern and efficient oil, gas and mining sector. Our success in this area will help us to build a new economy of the future (Strategy Development 2050 of the Republic of Kazakhstan, 2010, p.15).

The country's leadership projected using plentiful oil and gas revenues to facilitate the transition to an advanced knowledge economy that is based primarily on knowledge and expertise.

Related to this transition and following a neoliberal paradigm, Kazakhstan has formulated the goal of improving the quality of its higher educational system, with Western standards and practices serving as key reference points. Nazarbayev served as President of Kazakhstan (1991-2019) from its independence until recently when he stepped down and transferred power to Kassym-Jomart Tokayev, who continues with Nazarbayev's peculiar paradox in implementing neoliberal policies in Kazakhstan. Document analysis shows clearly that one of Nazarbayev's major goals was to use higher education to foster national identity. In his 2009 presidential address, Nazarbayev emphasized the significance of Nazarbayev University, which took Nazarbayev's

name, as well as the capital in 2019, Astana, which became Nur-Sultan. Nazarbayev connected Nazarbayev University to the country's nationalistic policy as follows:

> Creation of the new university is the most important national project… [This project] will have a significant impact on many Kazakhstanis and the development of a backbone for our state. I believe that the new university… should be created as a national brand, harmoniously combining Kazakhstani identity with the best international educational and scientific practice (Address of the President of the Republic of Kazakhstan, 2009, para. 7).

In this sense, the establishment of a national university with international collaboration was a vital step to promote nationalism among the younger generation. Founded in 2010, Nazarbayev University is the country's flagship university that strives to combine Kazakh national identity with the best international educational and scientific practices. Nazarbayev University is the first Kazakh university that was created based on the principles of autonomy and academic freedom, although on closer scrutiny we can see that claims such as these are relative to the culture, which in Kazakhstan's case leans autocratic.

As we can see in our initial analysis of Nazarbayev's policy texts and speeches, countries such as Kazakhstan with economies reliant on natural resource revenue may attempt to create an alternative way to generate income, including implementing a shift from a resource-based economy to a knowledge-based economy. In this instance, the Kazakhstani government invested much money from oil revenues to develop a "world class university" with an emphasis on both nationalism and internationalization (Altbach, 2015). As outlined by Altbach (2015), central characteristics of world class universities include outstanding research recognized by peers, top quality faculty members, favorable working conditions, academic freedom and atmosphere of intellectual excitement, internal self-governance, and adequate funding. By adopting market-based

policies, Nazarbayev University has been attempting to fit the description of a world class university to gain recognition in the international intellectual arena. However, as described by Altbach (2015), Nazarbayev University can be distinguished from other similar projects in that the major mission of it is to create equal partnerships with American and British universities. Although the language of instruction is English, international faculty members can learn Kazakh for free while teaching and working at Nazarbayev University. Administration at Nazarbayev University consists of an equal number of locals and foreigners (Nazarbayev University Strategic Development Plan 2013-2020).

REGULATED NON-REGULATION

Neoliberalism unleashes the psychological power and energy of opportunity, which creates vibrant economic growth and progression into the global economy. More wealth is created for power elites by unleashing the dream of previously unempowered individuals' and families' upward mobility. The prospect of unlimited opportunity is intoxicating and produces innovation. However, the opportunity is ultimately arbitrated by power elites who seek profit and preserve the power hierarchies and systems that deliver their profits. Ultimately, neoliberalism is a tool of greed. As fictional neoliberal icon Gordon Gekko declared in the Academy Award and Golden Globe Award-winning movie *Wall Street* (1987), "Greed is good!" One of the reasons why fiction can be so powerful is that, if done well, it can capture and distill broad realities in specific expressions like "Greed is good!" A centrally planned economy, which is a highly regulated economy, does not deliver wealth at a magnitude similar to neoliberal, unregulated, free markets.

Ironically, the concept of the free market was articulated by Adam Smith (1723-1790), a Scottish Enlightenment moral philosopher (Smith, 2005/1759) who perceived the free market as a way for commoners to prosper in the face of hereditary nobility and the Church. (Smith,

2017/1776). However, neoliberal, political-economic systems cannot sustain themselves in the face of unregulated greed (Harvey, 2005). They collapse and need huge, anti-neoliberal, Keynesian (1883-1946; Keynes, 1936) governmental infusions of cash (bailouts) as in the example of the 2008 Great Recession in the United States and with the economic decimation related to former president Trump's mismanagement of the COVID-19 pandemic in 2019-2020. The parallel to exploiting and degrading the environment by denying the science of climate change for individual gain at the expense of the larger community is compelling. Let the market solve the problem. Privatization of solving these large problems – a neoliberal tenet – in virtually every sector creates the opportunity for profits without results, which enables more financial gain until the system is broken and a bailout is needed. The cycle is clear: neoliberalism as a tool of greed is not sustainable. In many ways, neoliberalism needs regulation to survive itself. Kazakhstan provides a perfect example of this peculiar paradox. Kazakhstan leadership uses the psychological motivation generated by apparent non-regulation to enliven a population to produce a knowledge economy quickly within the context of an overall system regulated by a power elite that will control and benefit most from the knowledge economy.

Kromydas (2017) argues that via globalization higher education systems in developing countries follow Western paths. To prevent failure, policy makers in developing countries tend to replicate only "successful" Western policies (Nicholson-Crotty & Carley, 2016). Silova (2004; 2009) analyzed the replication of Western education policies in the post-socialist states and described this process as *education policy borrowing*. Similar to other post-Soviet countries, Kazakhstan became a borrower country. In particular, in the early 1990s, Kazakhstan began adapting and replicating the American model of private education. Until the country gained political independence in 1991, all public universities were funded by the centralized Soviet

government for nearly 60 years. The private higher education sector simply did not exist. The growth in the number of Kazakhstani private higher education institutions since then can be attributed to the rise of neoliberalism.

To recreate a successful American higher education model, over 60 new, private universities emerged in Kazakhstan after the introduction of the "Law on Higher Education" in 1993 (Sagintayeva & Kurakbayev, 2015). Private universities were founded in each major city after obtaining a license from the Kazakhstan Ministry of Education and Science. Whereas the most prestigious and high-ranking universities in the U.S. tend to be private, such institutions do not maintain the same respect and touted reputations in Kazakhstan. Although the country has carried out comprehensive privatization reforms of its higher education system since independence, private universities have a negative reputation in the intellectual community and general public. Fewer students enter private institutions than public universities in Kazakhstan, although the number of state-owned schools is almost two times lower than the number of private universities. 52 percent of Kazakhstan's higher education enrollment falls under the public university sector (Bayetova & Robertson, 2019). Furthermore, faculty members at private universities experience fewer opportunities to conduct high-quality research due to the shortage of well-equipped laboratories and libraries. Some private universities have also been involved in scandals related to the selling of diplomas and grades to students (Bayetova & Robertson, 2019). Due to this cause and others, many of the private universities have been suspended or closed within the last 30 years.

GIVE TO GET

Neoliberalism is a powerful and complex economic, political and cultural system that infuses market values in many aspects of policy and daily life within national and global societies.

Neoliberalism is associated with individual freedom and rationality of choice. With an intensified drive for personal freedom, education transforms from representing a public good to a private good. In Kazakhstan, after the transition to a market-based system universities introduced tuition charges. Due to the shortage of monetary support for public higher education, a financial burden of college tuition was created for students and their families. In the previous Soviet system, the communist government funded higher education. In the centrally planned economy of the USSR, students were assigned a university and curriculum, but they did not have to pay tuition (Azimbayeva, 2017; Maksutova, 2004).

On the contrary, with the neoliberal policies in independent Kazakhstan, government interference was minimized by providing students more choices in the types of universities, funding opportunities, and degrees. In 2005's annual presidential address to the nation, Nazarbayev acknowledged the government's responsibility to support the talented and the bright:

> We have many talented boys and girls who are willing and able to become engineers or technologists. Through education grants and credits, the government will help them in a very real way. I urge the private sector to join actively in this initiative (Address of the President Nazarbayev to the People of Kazakhstan, 2005, para.168).

In the same speech, Nazarbayev speculated, "At the same time the government should create a modern system of student loans to be offered through second-tier banks and backed by state guarantees" (Address of the President Nazarbayev to the People of Kazakhstan, 2005, para. 202). Ultimately, a loan industry was created in order to support the tuition costs for individual students.

This tradeoff is common in neoliberal paradigms: freedom, but at a cost. Kazakhstan's higher education system follows this familiar pattern of privatization where something is given (freedom of choice) but at a cost (tuition and fees which create individual student loan debt). Power

elites get something (increased wealth) from giving something (individual choice). Of course, the key is not to break the system that is providing the wealth accumulation: loan terms must be high to increase profits but not so high that individuals cannot accept them. In the same year as his speech about initiating governmental support for the nation's university students, Nazarbayev directed the creation of a modern student loan system offered by all second-tier banks in Kazakhstan, except the National Bank, and backed by state guarantees (Address of the President Nazarbayev to the People of Kazakhstan, 2005). The market logic is obvious.

After independence, there was a need for funding students' participation in the neoliberalization of the Kazakhstani higher education system. As tuition charges were introduced, the government provided students with educational grants and loans in a competitive and merit-based system. Following the premises of neoliberalism, educational grants and loans are given directly to students, not to universities: "Students receive voucher-like education grants that they carry with them to the public or private institution of their choice, so long as they choose to study a grant-carrying subject" (OECD report, 2017, p. 88). As transportable grants and loans, students can spend them at the university of their choice (Law on Education, 2007). Merit-based funding, in contrast to need-based funding, benefits more privileged students who go to better schools, can afford tutoring, and have access to more and higher quality technological tools because of income and network advantages (St. John et al., 2018).

COMMUNAL INDIVIDUALISM

In antiquity, the territory of Kazakhstan was inhabited by nomads, including the Scythians whose fierce tribes eventually worked their way west across Europe and became the Celts of Ireland and Scotland. In the 13th century, the territory of Kazakhstan was conquered by Genghis Khan and became part of the Mongolian Empire. Mongolian culture features a distinct

communalism contrary to the radical individualism of neoliberalism. In addition, Kazakhstan was a Soviet Republic for 55 years (1936-1991) during which time it was ruled by Soviet-style communism. Conversely, neoliberalism is founded on individualism.

The influxes of global policy reforms tend to spread and diffuse around the world and socially and politically reshape various social orders with dissimilar narratives (Simola et al., 2013). Neoliberal globalization has had radical implications on the cultures and traditions of various countries. One of the core attributes of neoliberalism when it is at work within a society is the development of self-interest with an emphasis on individual rights. Historically, Kazakhstan has represented a community-based, family-bound, collective society (Kabayeva et al., 2018). However, after the introduction of a market system, Nazarbayev called for a shift to modern, individualistic citizenry in his 1998 speech: "Collective responsibility equals no responsibility. Collective responsibility is the enemy of accountability" (Address of the President Nazarbayev to the People of Kazakhstan, 1998, para. 7).

It is a peculiar paradox that the neoliberal emphasis on individualism has also been prioritized in Kazakhstan's higher education, this profound change was explained by Nazarbayev in his 1997 presidential address: "State-and-collective world outlook was replaced by a private-and-individual one and the event reversed each and every aspect of our life" (Address of the President Nazarbayev to the People of Kazakhstan, 1997, para 18). For example, instead of a cohort of students attending the same courses each semester, the policy makers forged an "individual path of courses" for each student (Law on Education, 2007, para 12). This alternative policy allows students to complete courses based on their individual preferences as part of their degree.

Another example would be the emphasis in our preliminary analysis of policy speeches and strategic plans on developing higher education systems that support the development of human capital in the form of individual students and scholars in order to move the collective (the country of Kazakhstan) into the knowledge economy. Individualism was emphasized via the creation of an individual approach to education: individualized plan of study and student individual work with faculty (Law on Education, 2007).

DEVELOPMENT DEMISE

Encouraging sophisticated, critically thinking, Western-influenced, young adults who will innovate and build Kazakhstan's human and economic capital may destabilize rather than stabilize Kazakhstan's movement from an autocratic, resource-based economy to an individualistic, neoliberal, knowledge economy. It is a peculiar paradox of Kazakhstan that this Western education, which is promoted significantly by Kazakhstan's Bolashak Scholarship Program, will support democratic values that will undermine Kazakhstan's traditional culture and autocratic leaning.

In 1993, former President of Kazakhstan Nursultan Nazarbayev initiated a state-funded international scholarship called the "Bolashak" Scholarship. (Bolashak means "future" in Kazakh.) The purpose of the scholarship is for Kazakhstani students to pursue education abroad in the world's most prestigious universities in the United States, United Kingdom, Canada, China, Australia, and other countries. Since then, over 10,000 Kazakh students have studied abroad, earned degrees, and returned to Kazakhstan to fulfill the scholarship's obligations to serve the nation (Kucera, 2014). According to Bolashak requirements, recipients of the scholarship have to maintain a high grade point average (at least 3.0) during their studies and graduate on time. After graduation, Bolashak Scholars must return to Kazakhstan within 25 days unless special conditions

related to their education allow them to return at a later date. After returning to Kazakhstan, Bolashak Scholars are obligated to work in the country for five years and submit employment verification to the government every six months.

Educating students in democratic states inevitably brings Western liberal values and constitutes challenges for authoritarian ruling republics such as Kazakhstan. Western education tends to emphasize critical thinking, which Kazakh students can apply to challenge the government for corruption and systemic oppression.

Bolashak Scholars have been known to experience "reverse culture shock" upon returning to Kazakhstan after studying abroad (Del Sordi, 2017, p. 220). Western liberal education, with its emphasis on critical thinking and freedom of expression, can be a vehicle for developing highly intellectual, liberal rebels and activists. A clear paradox exists as the government orders the most capable, young intellectuals to pursue education abroad who, in turn, could return to grow an opposition force to the current system of leadership. Nevertheless, since the creation of the program, few Bolashak Scholars have been involved in criticism of the authoritarian state structure. Bolashak graduates tend to be promoted to leadership positions in the government. Those who comply with the regime become successful and influential political figures in Kazakhstan. In a peculiar paradox, the Bolashak Scholars Program buttresses the infrastructure of the current Kazakhstani, authoritarian-leaning power system while also planting the seeds of that system's opposition. Bolashak Scholars who are not in government positions are sometimes outspoken and civically engaged leaders who establish human rights organizations that involve the protection of women and children, anti-discrimination efforts on the basis of gender, transformation of the judicial system, and anti-corruption agencies. Through this paradoxical trend, some Bolashak Scholars develop critical thinking and problem-solving skills, which they use to innovate and

create capital value for companies and the government, but do not apply these abilities to foment change in the larger Kazakhstani socio-political system.

CONCLUSION

Policy analysis can sometimes introduce false binaries. For example, are the policies of a nation liberal or autocratic? The concept of paradox is a useful tool to counteract this tendency toward convenient, and perhaps simplistic, cognitive dualities and to allow for the discussion of proper nuance in policy. In this discussion, we began with the idea that a single paradigm, neoliberalism in this case, will have behavioral expressions that are peculiar depending on the national context, and we have employed the concept of paradox to discuss the nuances of these peculiarities. We hope that you find this discussion of Kazakhstan interesting and that this analytical methodology (peculiarity and paradox) is useful to you in other scholarly contexts.

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