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Climate Adaptation Through Creative Expression: Learning from Immigrant, Refugee, and Indigenous Communities

AFFILIATIONS

University of Michigan-Dearborn

EXP Summer Undergraduate Research Experience

"Only a very small proportion of the population can actually understand scientific facts and figures. Art can also add an emotional dimension to otherwise cold scientific facts. This can in turn inspire and even instigate action."

-Mark Ferguson, Social-Environmental Epidemiologist The Virtual Art Gallery (2021)



iskotêw mena nipîy by Lana Whiskeyjack (2022)

This artwork highlights how Indigenous women artists like Lana Whiskeyjack use creative expression to connect environmental degradation with spiritual, physical, and cultural harm. Responding to research on water contamination from extractive industries, Whiskeyjack visually conveys the sacred relationship between water, mountains, and women's bodies. Rooted in the nêhiyaw (Cree) worldview, her art illustrates the ripple effects of environmental violence on ecosystems and future generations. Through visual storytelling, Whiskeyjack challenges dominant narratives and affirms Indigenous knowledge as essential to climate adaptation and environmental justice.

01. Introduction

Climate change affects communities unevenly, with Indigenous peoples, immigrants, and refugees often facing the greatest risks. Adaptation is not only technical, it is cultural, shaped by values, lived experience, and diverse ways of knowing. Stories, poetry, and art can preserve knowledge, strengthen identity, and encourage cross-cultural learning for climate resilience. Our primary objective was to explore how diverse cultures navigate climate adaptation, and to examine how stories, poetry, and art can be used to share knowledge, encourage cross-cultural learning, and strengthen climate resilience.

02. Methodology

- **Literature Review:** Gathered peer-reviewed articles, case studies, community reports. Data was collected from databases such as Proquest and JSTOR using keywords such as, "climate adaptation," "traditional knowledge," "culture," "storytelling," "art," and "poetry."
- **Community engagment:** Insights and creative expressions drawn from a community-led Somali poetry event (May 23, 2025) exploring the intersection of Somali cultural identity and climate change. The event used poetry and storytelling to surface collective memories, lived experiences, and environmental concerns, creating connection and resilience, while offering a platform for cross-cultural learning through artistic expression.

03. Results/Findings

- Communities adapt through traditions and ecological knowledge.
- Cross-cultural dialogue strengthens adaptation without erasing differences.
- Valuing multiple ways of knowing improves equity and resilience.
- Art and storytelling make climate knowledge accessible

04. Future Plans

- Host a creative expression event at UM-Dearborn to spotlight student and faculty experiences with climate change.
- Support efforts that bridge science, policy, and cultural traditions in climate action

05. Professional Skill

Equity & Inclusion: We learned from diverse communities and understood their creative expressions to highlight their voices and experiences in the climate conversation.

Changing Climate: A Cultural Exchange Through Poetry Guide

06. Acknowledgments

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07. References

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