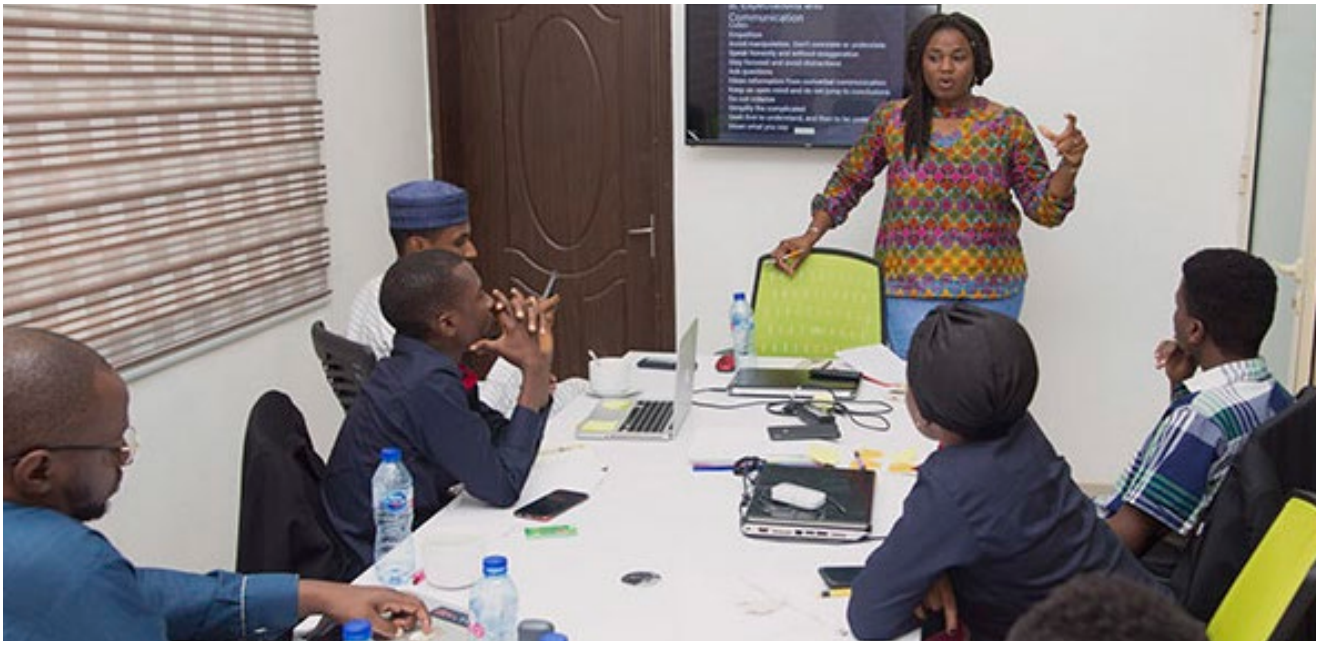
A Critical Review of the United States Government's Guidance for Federal Departments and Agencies on Indigenous Knowledge

The Department of Education in Perspective

By Chika Ezeanya Esiobu PhD,[1] Opal Almerica, Sakura Arai, Franny DePhillips, Michael Dickson, Ge Xiyang, Goodhue Angelina, Sarah Johnson, Kawai Hiromi, Zama Kunene



ABSTRACT

Perhaps the most significant milestone in the United States Government's advancement of indigenous knowledge in the 21st century was the recently released White House First-of-a-Kind Indigenous Knowledge Guidance for Federal Agencies. The Government Wide Guidance for Federal Departments and Agencies on Indigenous Knowledge was released on November 30, 2022, with the primary objective of equipping federal agencies and departments with clear directions on respectfully acknowledging and integrating Indigenous Peoples' knowledge in their decision-making processes.

[1] Chika Ezeanya Esiobu is Visiting Assistant Professor of African Studies, Soka University of America.

There is an urgent need for the Department of Education to integrate Traditional Ecological Knowledge (TEK) into K-12 curricula. The need has never been greater for inclusive and honest discussions within educational spaces regarding the importance and value of indigenous knowledge. This article offers many possible solutions to the absence of Traditional Ecological Knowledge in K-12 curricula as developed and practiced by Indigenous Peoples. This paper seeks to advance this objective by critically reviewing the Government Guidance, exploring the importance of TEK in K-12 curricula and drawing from examples around the world, emphasizing countries that effectively integrate TEK and uphold the voices of Indigenous Peoples in the classroom.

The paper first presents a critical overview of the "Guidance for Federal Departments and Agencies on Indigenous Knowledge." It goes on to address the issue of the dearth of TEK in K-12 curricula. It follows with a call to action to the Department of Education on ways to implement techniques included in the "Guidance for Federal Departments and Agencies on Indigenous Knowledge," as well as other possible solutions. After proffering solutions, the paper acknowledges places worldwide that have already attempted to integrate TEK in K-12 curriculum, before the concluding paragraph.

Keywords: environmental knowledge, education, indigenous knowledge, culture, curricula

The Guidance: A Critical Review

In the Government Wide Guidance for Federal Departments and Agencies on Indigenous Knowledge, the government of the United States acknowledges that indigenous knowledge is a critical knowledge body that holds the potential to contribute to scientific, technical, social, and economic advancement in the United States. Indigenous knowledge is foundational in today's global efforts toward sustainability, especially with the growing need for insights into the laws of nature. The Guidance calls for including indigenous knowledge in public education, not just for indigenous peoples, but for all students in the K-12 system.

Some segments of the document focus on Indigenous environmental knowledge. It highlights several policies implemented in the past that engaged in dialogue and valued the input of Indigenous communities regarding Environmental preservation. These policies include the Endangered Species Act, the National Environmental Policy Act, and the Marine Mammal Protection Act, to mention a few. These policies are clear examples of successful collaboration projects between federal departments and agencies and Indigenous communities, bringing forward the strength of each party in order to make better decisions that would be mutually beneficial. These successful collaborations of the recent past serve as proof of

how including another knowledge framework can lead to positive changes. Perhaps, their successes were instrumental in the U.S. government's decision to build and maintain a stronger relationship with Indigenous people and their knowledge system.

The first step for federal agencies trying to build a relationship with, and sustain efforts to include Indigenous knowledge is to respectfully acknowledge that both Western and Indigenous knowledge systems are equal but different in worldviews. However, the Guideline falls short of acknowledging Indigenous knowledge as an equal entity with Western knowledge. Yet, this necessary recognition is expedient in order to foster trust as well as a common understanding.

Most of the Guideline focuses on how federal agencies can benefit from Indigenous knowledge, through TEK's direct contributions to environmental management or as a crucial reference for further research. In other words, there is still a sense that the United States government perceives Indigenous knowledge as a resource yet to be fully exploited, which should be exploited to advance Western science. This is against an active recognition of TEK as a distinct body of knowledge to be explored for what it is, based on its philosophy, processes, and procedure. If the latter were the case, the Guidance would instead have advocated for actively establishing and maintaining a dynamic working relationship with Indigenous knowledge as a way of knowing and framing policies, different from the western knowledge system.

Although the term "mutually beneficial" was used frequently, the Guideline focuses strongly on how the U.S. government can primarily benefit from the knowledge of indigenous communities. A few sections in the document highlight how indigenous communities can benefit from integrating TEK in the policy action of federal departments and agencies. The government must embrace the novel idea that Indigenous knowledge should not be used; it should be respected and valued on its own. There should have possibly been more discussion about understanding Indigenous worldviews, indigenous peoples' philosophies, and ways of knowing much more than how TEK can be used to solve problems created by Western science and neo-liberalism. In this independent validation and understanding of TEK's depth and intensity, solutions can be naturally generated. Solutions cannot be gotten through the scientific dissection of TEK for the sole purpose of procuring answers to the nation's challenges.

The Government's Guideline explores how Indigenous knowledge can be "leveraged," "to improve community resilience and productivity." It is a typically Western concept to demand measurable productivity, quantitative growth, and unidirectional progress. However, these values are not shared or integral to Indigenous communities. Using terms such as "leveraged" and "productivity" with a qualitatively conceptualized Indigenous knowledge system, is at best questionable. What are the yardsticks for determining productivity in the context of Indigenous knowledge? Will the proposed

"leveraging" be intuitively and inherently in alignment with Indigenous values? These are only a few of the numerous unsettling thoughts the Guideline's proposition raises.

The document acknowledges historical wrongdoings that might prevent Indigenous peoples from being open to working with the federal government and emphasizes the importance of building trust within Indigenous communities. Nevertheless, the government overlooked that these historical wrongdoings have, over centuries, built inherently disadvantageous systems that need to be dismantled by working with indigenous peoples' knowledge and not by inviting them to benefit from such systems, even if now glazed over with Indigenous knowledge. Disregarding the implications that violence against them has caused, the document calls for including TEK within some of these already established policies and legal frameworks.

Despite the unprecedented degree of attention given to indigenous knowledge, the document's tone assumes that Indigenous communities stand to benefit from systems the United States already has in place rather than the government hoping to attempt to establish a better system together with TEK. The United States' governance, judicial, health, educational, and other systems were built out of a fundamentally different worldview than what Indigenous knowledge espouses.

The document emphasizes differences among Indigenous communities by acknowledging that every single Indigenous tribe is different and that not all of them hold the same values. These differences are described in ways that portray Indigenous communities as extremely challenging to work with rather than as the availability of an even greater diversity and wealth of knowledge from which to learn. The penchant for Western scientific standardization is superimposed on Indigenous knowledge and Indigenous peoples' communities. To wholly understand their knowledge, there is a need to genuinely work and learn together with Indigenous people.

Further, along the same line, the document refers to the penchant for Indigenous communities to be reluctant to share knowledge freely with each other or with people dependent on Western European ways of thinking. This inclination has roots in the violence done to the knowledge and existence of Indigenous communities, as well the poaching of their knowledge and its appropriation by Western commercial interests, among other factors.

There is a need for acknowledgment of spiritual influences on Indigenous communities' cultural practices. For example, the document states that "Indigenous Peoples' cultural practices are informed by Indigenous knowledge and frequently incorporate plant and animal communities, mineral sources, landforms, water bodies, and other tangible elements of the natural environment." By using the word "tangible," a division is established between the interconnections of the physical and spiritual or intangible realms, all of which are so relevant and sacred to Indigenous communities.

TEK in K-12 Curricula

The Department of Education does not presently incorporate TEK in K-12 curricula. There is currently no official government-mandated curricular framework to educate students on the distinctiveness of TEK as a way of knowing, as well as the promise it holds for reversing the unsustainable way of living, characteristic of contemporary Western culture. This lack of education supports a colonial worldview, perpetuates the suppression of TEK and indigenous cultures, and leaves little room for exploration in the search for solutions to the global sustainability and multi-sectored advancement quagmire.

Educational spaces should provide opportunities for the youth to adopt new and progressive perspectives that can create avenues for connection and unity. If adequately implemented by the Department of Education, the new government directive on Indigenous knowledge holds the promise of instilling a new narrative in the younger generation, which could help disrupt the current ways of knowing.

There are various ways in which TEK could be incorporated and valued within the United States Department of Education, focusing primarily on the K-12 curriculum. One key policy option to be considered is for the department to actively engage in intentional outreach to Indigenous leaders to have more representation of Indigenous peoples in high-up positions within the federal and state Departments of Education. The Guidance for Federal Departments and Agencies on Indigenous Knowledge discusses the importance of maintaining and building relationships to support Indigenous knowledge. It is vital that indigenous communities have the opportunity to have their voices elevated and heard regarding educational policies and decision-making. The following board of education positions and offices would be a great place to start with seeking out more indigenous leaders to be elected/ get on board, The secretary of education, The deputy secretary, The Institute of Education Sciences, and The Office of Communications and Outreach as well as state-level boards of education. More Indigenous perspectives on state boards of education would hopefully herald valuable insight and inter-generational transfer of TEK.

A policy change that could help ground students and make them feel a personal responsibility to care for their planet and become environmental advocates in the future is incorporating more TEK into the science and history curricula for K-12 students. Teaching these subjects from a multicultural lens can significantly help students develop a deeper respect and connection to nature, which in turn helps the public school system foster a steady flow of students that want to contribute towards a more sustainable future. This kind of education can come in different forms; one example is teaching the TEK circle philosophy during science class.

The circle philosophy emphasizes that humans are not superior beings but equally a part of the circle of life, vs. the Westernized triangle philosophy that humans are superior. This perspective can feel very humbling to

learn and help students understand their place in the natural ecosystem that does not paint them as superior beings with more value than other species. Another practice that could be implemented is regular in-class land acknowledgments. Recognizing the indigenous people of the land helps students become aware of all that was taken from indigenous communities through colonization and helps create a conversation starter in the classroom around the harsh realities of U.S. history. Students could also learn how to nurture and grow indigenous plants in science class while learning about traditional agriculture methods and what it means for food to be sustainably sourced. These are simple examples of topics and activities that can be integrated into the K-12 science curriculum incorporating TEK and indigenous knowledge.

Highlighting non-Eurocentric views in the classroom can help develop a more balanced, holistic worldview that fosters an eco-friendly mindset and empathy towards all living things. Presenting views based on the experience of indigenous peoples would also validate indigenous knowledge as a valuable science, which is rarely done in American public schools. Another policy option that is currently being proposed in the state of California is creating task forces with local tribes to make sure that Native American History is being taught accurately and thoroughly in classrooms. Unfortunately, "According to the National Congress of American Indians, as of 2018, K-12 curriculum in 27 states don't mention an individual Native person at all, with 87% of state history standards failing to teach Native history after 1900" (Levy 2022, 6). These failings highlight why supporting legislation such as the one proposed in California is critical at this time.

Another policy option for incorporating TEK in the K-12 curriculum could involve creating various units on culture, and self-identity, promoting cultural awareness, appreciating diversity, and fostering an inclusive space. Cultural exploration in the classroom could help encourage students to learn more about their roots and provide opportunities for traditional languages, knowledge systems, cultural practices, and traditions to stay alive and gain more attention from youth.

Traditional Ecological Knowledge should be taught through experience in nature. TEK has been developed and inherited through observation of nature, daily experiments, and verbal communication with elders. Textbooks and articles are not enough for students to acquire indigenous worldviews and TEK; they need to learn TEK by interacting with nature and learning from knowledge holders. For instance, the United Kingdom Department of Education already has an Outdoor Learning Project, acknowledging the importance of learning outside. Outdoor education enhances students' learning outcomes. Khan et al. (2020) reports that students who received outdoor education showed higher academic performance than those who received indoor education.

Moreover, education connected to the land helps students feel responsible for taking care of their land and respecting it as their elders have. Høyem (2020) reports that students can establish

the foundation of "a conscious relationship with nature" (p. 7) through outdoor activities. However, he also mentioned that outdoor recreation alone could not raise environmentally responsible behavior among students (Høyem, 2020). To compensate for the shortcoming, TEK should be included in the outdoor education curriculum in the United States. TEK involves the philosophy that humans and nature are interconnected, and humans must value ecosystem services by caring for the environment. Indigenous knowledge systems encompass a rich repository of cultural, environmental, and traditional wisdom vital in sustaining indigenous communities. By learning about TEK in outdoor education guided by Indigenous knowledge holders, students can learn how to interact with nature and establish environmentally responsible behavior. Therefore, schools should invite local indigenous peoples as teachers of TEK and implement outdoor education to practice their knowledge in the natural environment.

The Department of Education can draw inspiration from some countries that have tried to preserve and promote indigenous knowledge in their education systems. These countries have successfully integrated Indigenous knowledge systems into their K-12 curriculums. The New Zealand government has mandated that Indigenous knowledge be made a significant aspect of secondary-school education. In the country's Middle and High schools, Indigenous knowledge is gradually being positioned to be taught as equal to Western science in science education (Jerry Coyne, 8 2013).

Another country that has made headway in including TEK in its education system is Norway. Norway has been in the process of incorporating indigenous knowledge, specifically Sámi knowledge, into its curricula. The Sámi are the indigenous people of Norway, Sweden, Finland, and Russia's Kola Peninsula. The Sámi Core Curriculum was developed to address the specific educational needs and cultural values of the Sámi people. The curriculum emphasizes including the Sámi language, culture, and history across various subjects. It also includes incorporating traditional Sámi knowledge, practices, and perspectives into the subjects of social studies, history, and art. This inclusion helps foster a sense of cultural pride and identity among Sámi students, and educate other non-Sámi people on the value and importance of the Sámi culture. Providing professional training for teachers to enhance their understanding of the Sámi culture is also vital. By incorporating Sámi knowledge into the education system, Norway acknowledges the importance of preserving and promoting the cultural heritage of the Sámi people. This approach aims to enhance the educational experiences of Sámi students, promote cultural diversity, and foster mutual respect between different cultural groups within the country.

The lack of education regarding TEK and indigenous culture profoundly affects indigenous people. The erasure of their culture is ongoing due to the ignorance perpetuated through the curricular silence on indigenous knowledge, culture, wisdom, and history in the American education system. The wisdom of indigenous

communities has been repeatedly ignored and suppressed due to colonialism, cultural domination, and systemic oppression. This issue has never been fully and effectively addressed within the Department of Education, and implementing this new policy would be a step in the right direction. Acting now, in alignment with the Guidance for Federal Departments and Agencies on Indigenous Knowledge, the Department of Education will help mitigate further marginalization and erasure of indigenous communities and knowledge, which is not only unjust but also detrimental to the whole society.

This paper critically examined the recently released United States' Government Guideline to Federal Departments and Agencies on Indigenous Knowledge. It further discussed the importance of integrating Indigenous knowledge, culture, and history into K-12 curricula in the U.S. The lack of TEK in K-12 education has led to the loss of indigenous knowledge and cultures and the dominance of Western science, which perpetuates individualism and the degradation of nature. To ensure TEK and Indigenous voices are valued, honored, and heard, the Department of Education needs to integrate TEK into decision-making processes and K-12 curricula. By receiving education related to Indigenous knowledge and cultures at a young age, students can develop multicultural awareness and deepen their understanding of the interconnectedness between nature and themselves. This realization will be critical to overcoming colonialism, cultural domination, and systemic oppression, and re-establishing the coexistence of nature and humans. Traditional Ecological Knowledge has been overlooked and undervalued for far too long; it is time for more effort to be invested into elevating the voices of Indigenous people to the next generation of Americans.

REFERENCES

Executive Office of the President, Office of Science and Technology Policy. (2022, November 30). *Memorandum for Heads of Federal Departments and Agencies*. Retrieved May 5, 2023, from Whitehouse.gov: https://www.whitehouse.gov/wp-content/uploads/2022/12/OSTP-CEQ-IK-Guidance.pdf

Hoyem, J. (2020). Outdoor Recreation and Environmentally Responsible Behavior. *Journal of Outdoor Recreation and Tourism*, 31. https://doi.org/10.1016/j.jort.2020.100317

Khan, M., McGeown, S., & Bell, S. (2020). Can an Outdoor Learning Environment Improve Children's Academic Attainment? A Quasi-Experimental Mixed Methods Study in Bangladesh. *Environment and Behavior*, 52(10), 1079–1104.

Somby, H. M., & Olsen, T. A. (2022). Inclusion as Indigenisation? Sámi Perspectives in Teacher Education. I*nternational Journal of Inclusive Education*, vol. 1-15, pp. 1–15.

United Kingdom Department of Education. (2022, February 10). *Outdoor Learning Project - Guidance for Schools*. Retrieved May 5. 2023, from Government of UK website https://www.educationni.gov.uk/sites/default/files/publications/education/Outdoor%20Learning%20Project%20-%20Guidance%20for%20Schools.pdf

This Article may be cited as:

Ezeanya Esiobu C., Almerica O., Arai S., DePhillips F., Dickson M., Xiyang G., Angelina G., Johnson S., Hiromi K., Kunene Z., (2023) A Critical Review of the United States Government's Guidance for Federal Departments and Agencies on Indigenous Knowledge: The Department of Education in Perspective. Fourth World Journal. Vol. 23, N1. pp. 124-132.

ABOUT THE AUTHORS

Chika Ezeanya Esiobu

Dr. Chika Esiobu holds a Ph.D. in African Studies from Howard University in Washington, D.C. She is the author of *Indigenous Knowledge and Education in Africa* (Springer 2019), in addition to numerous journal articles, book chapters, and essays. Dr. Esiobu is presently a visiting assistant professor of African studies at Soka University of America in Aliso Viejo, California.

Opal Almerica

Opal Almerica is in her second year at Soka University of America. A native of Boise, Idaho, Opal is currently pursuing a liberal arts degree with an Environmental Studies focus. She is interested in further exploring sustainable agriculture, sociology, and nutrition.

Sakura Arai

Sakura Arai is a second-year student at Soka University of America. A native of Saitama, Japan, Sakura is interested in studying indigenous knowledge and indigenous people's lives.

Frances DePhillips

Frances DePhillips is a third-year student at Soka University of America. She is pursuing a degree in Liberal Arts with a Concentration in Environmental Studies.

Michael Dickson

Michael Degraft Dickson is currently pursuing a double concentration in Environmental Studies and Business at Soka University of America. He is passionate about improving sustainability in business and exploring ways to help support the environment.

Ge Xiyang

Xiyang Ge is a first-year master's student in East Asian Studies at Stanford University. Xiyang's interests lie in indigenous knowledge preservation, addressing regional food security, and promoting corporate social responsibility. He is passionate about studying dynamic public-private partnerships in the emerging post-pandemic era.

Goodhue Angelina

Goodhue Angelina is from Taos, New Mexico. She earned a Bachelor of Arts degree in Liberal Studies from Soka University of America in 2023.

Sarah Johnson

Sarah Johnson is from Bloomfield, New York. Sarah is a member of the class of '25 at Soka University of America where she is studying the Social and Behavioral Sciences. With a profound passion for linguistics and indigenous knowledge, Sarah aspires to explore the intricate interplay between language and culture in her academic and professional journey. Sarah is excited to further pursue knowledge in her chosen fields.

Hiromi Kawai

Hiromi Kawai is currently enrolled as a third-year student at Soka University of America, and her concentration is Social Behavioral Science. She is especially interested in Sociology and Indigenous studies. She strives to remain critical, and continuously fights against social injustices in the world.

Zamangwane Kunene

Zamangwane Kunene is a 3rd Year student at Soka University of America, concentrating in Environmental Studies. She is interested in pursuing a career in urban planning, sustainable development, and transportation systems.