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Critical Reflections on SALAMANDER.

A Response to *Land Education and Young People Working Toward SALAMANDER*

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Abstract

In this response, we examine what it means to center Indigenous perspectives, how we can avoid overly individualistic approaches to examine the well-being of students, and how SALAMANDER might be implemented with younger students.

This article is in response to

Arens, R., Martinez, R. (2023). Land education and young people working toward SALAMANDER: Collective well-being in response to bioindicators of socioenvironmental justice. *Democracy and Education*, 31(2), Article 1.

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IN “LAND EDUCATION and Young People Working Toward SALAMANDER: Collective Well-Being in Response to Bioindicators of Socioenvironmental Justice,” authors Arens and Martinez (2023) described Arens’s thoughtful and innovative SALAMANDER framework. The framework weaves together several important strands, including student research, bringing marginalized voices into education, critical reflection, and student well-being. To understand the framework, we first explore land education and youth participation action research (YPAR). Once these topics have been discussed, we turn to the SALAMANDER framework itself and raise three questions for the approach: How should we center Indigenous knowledge and ethics? How do we avoid individualistic approaches to determining the well-being of students in their communities? How might the approach be applied inclusively to K–12 education? Let’s begin with land education.

Place-based education has been central in science education because it has been determined that student learning is enhanced by connecting content and methods to local socio-ecological communities. Additionally, students can take a critical position regarding their communities, assessing ways in which things are going well and ways in which they are not. This is extremely important when we think about environmental issues like climate

change, pollution, and biodiversity loss. However, as Arens and Martinez (2023) noted, many marginalized communities such as Indigenous people are ignored. This can happen because capitalist and colonialist harms are erased or because they are papered over with “romanticized stories” (p. 2). Thus, place should not be seen as a “neutral backdrop” or merely as a biotic, physical environment. Land education theory (Calderon, 2014) is an approach to education about place that puts Indigenous people at the center along with their knowledge of the places they inhabit. An example of this trove of knowledge would be fire management through “good fire,” or controlled burns (Stewart, 2002). Native Americans used fire to

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clear land, manage specific plants and animals, and prevent larger catastrophic fires. Given urban development, fire suppression, and climate change, it is even more important to take this tradition of cultural burning seriously. Teachers can also explore different economic and ethical perspectives through notions like private property. For example, following Locke (1988), many white settlers believed that the lands they took were theirs because they thought they were unowned and unworked. The thought was that natural resources become one's property when one mixed labor with them. This is contrary to fact—Indigenous peoples used and developed these lands—and appeals to a controversial theory of property. This is important also because it raises the question of how settler colonialism continues today (Whyte, 2017). With land education theory, students learn about place not as a mere biophysical environment but also as a socioeconomic environment suffused with values. Let's now turn to YPAR.

For many educators, the point of an education is not merely to interpret the world but to change it. The goal of education is to understand our socio-ecological environments and to make them better for all those dependent on and affected by them. YPAR is an approach that does this through inviting students to be co-researchers who address the complex problems that we face. YPAR is a unique approach that incorporates Latinx knowledge, feminism, critical race theory, and Indigenous worldviews along with a critical perspective. This critical perspective is not individualistic in the sense that one can question and reflect alone. Rather, one does this in epistemic cooperation with others in one's community. One way this approach challenges traditional environmental education is that it departs from individual-based consumption decisions as the only way to address problems like climate change, pollution, and biodiversity loss. For example, simply looking at one's carbon footprint and eating less meat or biking more is not the only way to address climate change. Climate change is best understood as a structural problem that requires collective action. Moreover, the fact that many of us must drive or eat meat is often due to large-scale features of our culture and economics rather than poor character or weak will.

One crucial component of student education is the recognition that they are part of the socio-ecological environments about which they are learning. Land education theory and YPAR contribute to assessing the ways in which people—and the environment more generally—are doing. For example, are there injustices where goods and resources are inequitably distributed? Are there harms that have occurred that have not been rectified or even addressed? Who should be participating in crucial decisions but is being left out? That is, students should learn about distributive, restitutive, and participatory justice. Since students themselves can be the victims of injustice, it is crucial to assess their well-being, and for them to do so as well. Thus, following Ginwright (2016), student well-being can be assessed on the continuum of *suffering*, *surviving*, *challenging*, and *thriving*. These are not discrete categories, but they can be helpful ways to categorize one's own flourishing. Moreover, they are multidimensional since they include such disparate things as personal experiences, desires, and achievements. It can be very difficult to aggregate them into a simple metric.

It is through these influences that Arens developed the SALAMANDER Collective Well-Being in Response to Bioindicators of Socioenvironmental Justice Framework. Arens, with her students, worked to produce an action plan to address the loss of trees due to drought, higher temperatures, and the invasive species emerald ash borer (*Agrilus planipennis*) in Nebraska. The plan involved the city planting different tree species on campus and communicating the planting's importance to the city at large. In the process, students learned about the Homestead Act of 1862, the Indian Removal Act of 1830, and the Kansas-Nebraska Act (1854), and they heard from representatives of the district's Native Indigenous Centered Education program.

Arens also developed an innovative methodology for YPAR, namely SALAMANDER. The methodology consists of YPAR with SALAMANDER embedded in it. Additionally, Arens coded the YPAR project with various descriptions of emerging themes. Finally, she mapped the four categories of well-being onto the conditions of socio-ecological justice. Here are examples of this mapping (Arens & Martinez, 2023, p. 7). Individuals *suffer* when they feel hopeless and powerless when their land is abused, and they and others are actively being harmed. This is *permanent injustice*. Individuals are *surviving* when they are merely adapting to the status quo and must accept or compromise themselves to it. This is *persistent injustice*. Individuals are *challenging* their socio-environment when they reflect on and reject the status quo of Western environmental views and policies and center Indigenous perspectives and practices experiencing a sense of power and hope. This is *promising justice*. Finally, individuals are *thriving* when the land is shared broadly with its members in a way in which responsibility is shared as well. This is *optimal justice*. We can see that SALAMANDER is involved in the mapping of conditions of well-being to environmental (in-)justice in the process of YPAR. It is crucial to note that this framework is adaptive and flexible.

We now critically engage SALAMANDER as a framework. There are several issues to consider: The first is that of centering Indigenous knowledge. It is a truly welcome change to see Indigenous perspectives brought in on topics like economy, ecology, and ethics. For example, as noted before, Native Americans have a long history of using fire to manage landscapes. In contrast, the Forest Service has practiced extreme fire suppression throughout much of North America since 1935 (Pyne, 2017). The tradition of "cultural burning" is one crucial piece of addressing this problem. Likewise, a great deal of ethics as taught in schools has ignored the point of view of Indigenous peoples (Burkhart, 2019). One can find Indigenous perspectives in environmental ethics, but that is the exception and not the rule (Callicott & Nelson, 2004).

These traditions offer insights across a wide range of topics. For example, as has been argued extensively, ethics in the West have often been problematically anthropocentric and ignored the environment. Insofar as the environment has been discussed in Western traditions, it is often viewed as a resource to be priced. Thus, given the marginalization and epistemic injustice that has resulted, Indigenous perspectives should be centered. Arens and Martinez (2023) wrote:

For students to truly understand sustainability and land care within environmental education, Calderon (2014) explained that education must center Indigenous people and their knowledge of climate resilience, such as practices of agriculture, fire-adapted management, combating desertification, community responses to environmental risks, collecting ecosystem change data over long periods of time, and communicating Indigenous language concepts and interconnections not understood by Western science alone (David-Chavez, 2022; David-Chavez & Ortiz, 2018; Intergovernmental Panel on Climate Change, 2022). (p. 3)

However, we would like to raise questions about what form this centering takes. Let's consider two extreme views. One approach to Indigenous perspectives is *deferral*. Here we recognize the inadequacies of certain Western perspectives (e.g., anthropocentrism), and we assume that Indigenous knowledge and ethics are better than our own. One advantage of this approach is that it addresses a past epistemic injustice, in part. After all, Indigenous perspectives have been willfully ignored and erased in many parts of society. The main worry with deferral is that it does not respect these perspectives since it does not critically engage with them. To simply accept a point of view because it is marginalized patronizes the point of view itself. As a second point, Indigenous perspectives sometimes disagree with one another. We should not assume tribal views are homogenous. This is even more evident with Indigenous traditions across space and time. So, even if we are to defer, we must ask, which perspective do we defer to? A different approach is *appropriation*. Here we take the scientific or ethical insights, theories, ideas, and values and make them our own without acknowledgment. Likewise, we may take those viewpoints but decouple them from their associated worldviews. Fire management would be a good example again since the role of fire is connected to views regarding land health. Again, this is a form of disrespect since we are colonizing the worldviews of others. What is the alternative? The best way to approach Indigenous perspective is through *critical engagement*. We must both recognize the strengths and weaknesses of other points of view and respect them *as theirs*. For one example of critical engagement, many students read Robin Wall Kimmerer's (2013) *Braiding Sweetgrass*. This book introduces a variety of ideas, including thinking about our environment as a gift rather than as a resource. She wrote:

That is the fundamental nature of gifts: they move, and their value increases with their passage. The fields made a gift of berries to us and we made a gift of them to our father. The more something is shared, the greater its value becomes. This is hard to grasp for societies steeped in notions of private property, where others are, by definition, excluded from sharing. (p. 27)

This understanding is vital for students who will encounter economic and ethical ideas that suggest our only obligation to our environment is to maximize profits. Kimmerer (2013) introduced a form of animism too (or at least a form of non-anthropocentrism):

Our toddlers speak of plants and animals as if they were people, extending to them self and intention and compassion—until we teach

them not to. We quickly retrain them and make them forget. When we tell them that the tree is not a who, but an it, we make that maple an object; we put a barrier between us, absolving ourselves of moral responsibility and opening the door to exploitation. Saying it makes a living land into “natural resources.” If a maple is an it, we can take up the chain saw. If a maple is a her, we think twice. (p. 57)

Critical engagement requires students to think carefully about what it means to say plants have minds. What moral obligations would follow from it? What evidence is there for this claim? Respecting the view is to take it seriously by asking the sorts of reflective questions we would (or should) ask about our own traditions. We do not mean to suggest that Arens and Martinez (2023) are advocating for deferral or appropriation. Rather, the questions we have for Arens and Martinez are, how do they think we should approach Indigenous perspectives? How can we avoid deferral or appropriation?

We now turn to a different set of questions. Arens and Martinez (2023) were right when they rejected the sort of individualism that permeates much of our ethical and economic discourse. One way of thinking about our environment is that it considers our relationships with others. Proctor (2009) wrote, “*Environment* is a way of recognizing the larger circle: It is not the natural stuff to which we must remember our connection, it is the connection itself, which includes, yet moves far beyond, this natural stuff” (p. 306).

These relationships include our fellow humans who exist now and will exist in the future and all the more-than-human beings that we exist with too. One feature of SALAMANDER is that it invites us to track the well-being of students (and teachers) especially given their place in socio-ecological communities. This mapping of well-being both to conditions of (in-)justice and to curriculum is extremely valuable. After all, they are part of the communities that they are studying. However, one concern we have is that the evaluation of well-being still happens in terms of individual students. In conjunction with evaluating student well-being, we would also like to see the evaluation of *students' well-being* as a group and not as a mere “collection” of individual students. One phenomenon that psychologists have documented is what is called “adaptive preferences” (Khader, 2011). When we face a disappointing world full of injustice, we can either change the conditions leading to injustice or we can change our preferences regarding what we want. For example, if a student has difficulty with learning math, they or their parents might inquire into how math might be more appropriately taught. However, a student might also adapt and simply think that “I am not good at math.” When students simultaneously adapt their preferences to an unjust world, they may report that they are better than they are. It is only by exploring how the group is doing—how *we* are doing—that their true well-being is discovered. This is even more pressing given the existence of climate anxiety affecting students. We agree that there is a need for “critical collective consciousness”; Arens and Martinez (2023) wrote:

Critical consciousness develops through dialogue comprised of questioning, discussing, developing, and reflecting with others, and

through dialogue, individuals gain knowledge, perspectives, and collective agency (Shor & Freire, 1987). YPAR *EntreMundos* challenges individualism by making critical consciousness a collective process and recognizes youth as central to holding the power, intellect, and capability to enact social justice and develop collective critical consciousness through cooperative inquiry and dialogue alongside community members and researchers to understand the systemic and educational contexts that oppress students. (p. 4)

We also wonder whether it is part of SALAMANDER that we should be moving from *suffering* and *surviving* to *challenging* and *thriving*. One concern is that when our communities are unjust and students become aware of it, they will naturally want to make their communities better. But when there are structural reasons outside of their control, this can contribute to a sense of impotence and hopelessness. This is evident from the many discussions of climate anxiety (Hickman et al., 2021). So, we are left with more questions: Do Arens and Martinez see an individualistic worry embedded in the methodology? How might we evaluate the well-being of students without this pitfall? How can SALAMANDER be a tool for critical collective consciousness?

Finally, we think that SALAMANDER is innovative and does important work situating students into their socio-ecological environments. In a sense, they are barometers for how our communities are doing. However, the SALAMANDER approach involves some very complex concepts. For example, in discussing Calderon, Arens and Martinez (2023) wrote:

Calderon (2014) also purported that education must confront the evolution of settler-colonial perspectives within environmental practices and policies. To do this, she stated that teachers need to explain that all places in the United States were once Indigenous lands and continue to be their lands despite their forced removal. She also stated that teachers must encourage students to assess how various colonial practices impacted their localities and subsequently shaped them. (p. 3)

Younger students certainly understand theft and how it can be wrong. However, this also involves notions of sovereignty and redress. We firmly believe that these are important topics for students of all ages to engage with and confront. As other examples in SALAMANDER, consider ideas like *internalized oppression*, *acceptance of status quo*, *collective power*, and *sustainability*. They are rich ideas, but we wonder how they might be unpacked and

presented to students not in high school but for whom a tool like SALAMANDER might be very useful. Thus, our question is how might we do this in K–8 classes with younger students? Of course, it may be that this tool is most applicable to high school students.

Arens and Martinez's (2023) essay describes some innovative work in education. We think incorporating students in research, reflecting on Indigenous knowledge, and considering their own well-being in their communities is of vital importance. It is in this spirit that we raise questions about the SALAMANDER framework in terms of core ideas, methodology, and application.

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