

For the Love of Nature: Bringing Environmental Justice to Urban Elementary Students

Lizzette Mendoza, LAUSD, lizzm91@gmail.com

Brad Rumble, LAUSD, brumble@lausd.net

Jeff Share, UCLA, jshare@ucla.edu

Abstract:

This essay explores the role of critical pedagogy in environmental justice education. We discuss the need for teaching a love of nature (biophilia) as an entry point for developing a caring relationship and sense of stewardship with the natural world. Place-based education and ecopedagogy offer liberatory potential to make education more transformative and focused on the intersections between social and environmental justice. After discussing theoretical approaches of ecopedagogy and indigenous perspectives, we describe a project in which a principal converts the hardscape at two schools into natural habitats and a new teacher engages her students in ecopedagogy.

Keywords: environmental education, biophilia, environmental justice, ecopedagogy, stewardship, elementary education, critical pedagogy, critical media literacy

Lizzette Mendoza grew up in Long Beach, CA, not far from the Lower Los Angeles River. She received her master's degree in education in 2017, focusing her thesis on ecopedagogy. She currently teaches first grade in the Florence-Firestone neighborhood of Los Angeles at Parmelee Avenue Elementary School and continues to work with her students in studying the natural environment in their community.

Brad Rumble is a graduate of UCLA and has served at three elementary schools in the urban core of Los Angeles during his 29-year career with Los Angeles Unified School District. In his first principalship at Leo Politi Elementary, he collaborated with the Los Angeles Audubon Society on the transformation of unused campus space into a native habitat for student study. He was able to do the same at his current school, Esperanza Elementary in the Westlake neighborhood of downtown Los Angeles. He is a national fellow of America Achieves and has served on the Principals' Advisory Board of Scholastic Book Fairs and the Board of Directors of the Los Angeles Audubon Society.

*Jeff Share is a Faculty Advisor in the Teacher Education Program at the University of California, Los Angeles (UCLA). His research and practice focus on preparing educators to teach critical media literacy in K-12 education, for the goals of social and environmental justice. An updated second edition of his book, *Media Literacy is Elementary: Teaching Youth to Critically Read and Create Media*, was published in 2015. Two years later Routledge published the book he co-wrote with Richard Beach and Allen Webb titled, *Teaching Climate Change to Adolescents: Reading, Writing, and Making a Difference*. Collaborating with Douglas Kellner in 2019, they published, *The Critical Media Literacy Guide: Engaging Media and Transforming Education*.*

“A love of nature keeps no factories busy. It was decided to abolish the love of nature, at any rate among the lower classes; to abolish the love of nature, but *not* the tendency to consume transport.” – Aldous Huxley, *Brave New World* (1932/2005, p. 31)

Introduction

Since the 1990s, the US has begun to take environmental issues more seriously with the creation of the Office of Environmental Justice. In 1994, President Clinton signed an executive order that mandated federal agencies consider environmental justice with all policies and affirmed that environmental injustice is a violation of Title VI's Civil Rights Act (Jackson, 2017). However, with neoliberal ideologies dominating politics and rightwing politicians denying climate science, environmental justice has not become a social or educational priority and has come under direct attack lately. The failure to seize this moment and confront the devastating effects of CO2 emissions and over-consumption is a dangerous mistake for everyone, especially the poor and communities already most marginalized. Systemic issues of racism have contributed to much of the environmental inequality that necessitates specific focus on how environmental problems disproportionately affect people of color and marginalized communities. As scientists warn of a potential global mass extinction beginning as early as 2100 (Jamail, 2019), an educational response to the current situation of environmental injustice and climate change is more necessary now than ever.

Educators need new pedagogies and theoretical frameworks to address these issues in a critical way that fosters awareness and empowers environmental activism in students from kindergarten on up. Exploring relationships with nature can start the journey of building a love of the natural world (biophilia) to counteract the disconnection from and even fear of nature (biophobia) that has been exacerbated by urbanization and capitalism. Place-based education is a pedagogical approach that can support students to begin their inquiries exploring their own space and surroundings. Nel Noddings (2016) states that place-based education “provides connection and meaning to studies that sometimes deteriorate to a mere memorization of facts” (p. 17). In the last century, John Dewey (1956) argued for the importance of grounding education in student experience. In order to develop modes of thinking for a more sustainable planet, students need opportunities to build community with one another and experience their natural surroundings.

This challenge is particularly important and more difficult in urban areas and is why in this essay we explore how a principal and a new teacher have addressed these problems at their inner-city schools. Noddings (2016) specifically discusses cultivating “a love of place” for students in these spaces. She states that educators should create or find natural spaces for students to learn in and develop biophilia, “the love of life and lifelike forms” (p. 14). Noddings stresses the importance of place-based education, where students can make meaningful observations outside of the classroom. Students are encouraged to leave the classroom and observe nature in their own community, thereby defining nature in local, as well as global terms. Nature need not be some removed forest hundreds of miles away from home; it can be a small patch of grass in the playground or the insects that live among us. Place-based education is a pedagogy that seeks to ground student learning in the local community. Gregory Smith (2007) explains that place-based education has its roots in environmental education and that it involves

providing students with opportunities to engage in community issues in order to empower them with a sense of agency.

Ecopedagogy

Paulo Freire (2010) has written extensively about the liberating potential of education, where students are encouraged to engage with genuine issues facing them and society. He stresses the significance of learning *with* students and emphasizes the need to create space for students to “name the world.” Freire calls it an act of creation, one that requires love and a commitment to others. Naming can begin the process of studying the environment to develop a loving and sustainable relationship with the natural world.

Ecopedagogy is an educational response that has emerged from critical pedagogy as a way to emphasize the importance of ecological justice. Richard Kahn (2010) explains that the ecological crisis our planet is facing requires a focus on critical analysis and ethics. He suggests that students should be taught to identify problems in their own environment and study them to propose solutions. Ecopedagogy is deeply rooted in critical analysis and optimism. Kahn (2010) writes,

...the international ecopedagogy movement represents a profound transformation in the radical educational and political project derived from the work of Paulo Freire known as *critical pedagogy*. Ecopedagogy seeks to interpolate quintessentially Freirian aims of the humanization of experience and the achievement of a just and free world with a future-oriented ecological politics that militantly opposes the globalization of neoliberalism and imperialism, on the one hand, and attempts to foment collective ecoliteracy and realize culturally relevant forms of knowledge grounded in normative concepts such as sustainability, planetarity, and biophilia, on the other. (p. 18)

Inequality of Environmental Problems and Public Concern

For many years, environmental problems in the US have been represented in mainstream media as issues of *universal vulnerability*, as if everyone were affected equally by environmental dangers (Dunaway, 2015). This hid the fact that low-income neighborhoods, especially communities of color, have been impacted with far worse consequences of environmental hazards than middle and upper class areas. Naomi Klein (2019) explains:

Although climate change will ultimately be an existential threat to all of humanity, in the short term we know that it does discriminate, hitting the poor first and worst, whether they are abandoned on the rooftops of New Orleans during Hurricane Katrina or are among the thirty-six million who, according to the United Nations, are facing hunger due to drought in southern and East Africa. (p. 165)

When one takes into consideration issues of age along with class and race, it becomes apparent that the inequality of the effects of environmental problems and climate change put poor children of color on the front line. Frederica Perera (2016) reports, “While air pollution and the adverse health impacts of climate change affect us all, they are most damaging to children, especially the developing fetus and young child and particularly those of low socioeconomic status, who often have the greatest exposures and least amount of protection.” Students need to understand that climate change and many environmental problems affect everyone, but not equally.

Rob Nixon (2011) asserts that many of the effects of climate change and environmental catastrophes are *slow violence*, and therefore receive very little attention in commercial media. Nixon explains, “By slow violence I mean violence that occurs gradually and out of sight, a

violence of delayed destruction that is dispersed across time and space” (p. 2). Climate change is a classic example of slow violence because the increase in carbon dioxide that is warming the planet has been growing over time, is not easy to see, and has far greater long-term effects than immediate consequences. Nixon points out that the people with the least resources tend to be the ones most impacted by slow violence. He states, “Our media bias toward spectacular violence exacerbates the vulnerability of ecosystems treated as disposable by turbo-capitalism while simultaneously exacerbating the vulnerability of those whom Kevin Bales, in another context, has called ‘disposable people’” (p. 4). The neoliberal ideology of continual growth and consumption regards everything and everyone as a resource to be exploited, without any concern for human rights or sustainability (Giroux, 2014).

Because of the current media environment that thrives on spectacles, celebrities, and powerful visual imagery, slow violence is also a problem of representation. Douglas Kellner (2003) writes, the influences of media, information, and entertainment demonstrate “the triumph of media spectacle over reality and the immense power of media culture to define what is real, important, and worthy of attention” (p. 102). When the effects of environmental problems are not immediate and sensational, they are less likely to be reported in mainstream media and therefore less valued as important to the general public. This disregard by commercial media is even greater when the witnesses and victims of slow violence are people who are already marginalized and stigmatized by poverty.

In his bestselling book, *Between the World and Me*, Ta-Nehisi Coates (2015) explores the deep pain and damage of racism in the US. He vividly describes the devastation that white supremacy tolls against black bodies. On the final pages he connects the exploitation that “people who believe themselves to be white” (whom he also refers to as “Dreamers”) have enacted, “to plunder not just the bodies of humans but the body of the Earth itself” (p. 150). He writes,

Dreamers will have to learn to struggle themselves, to understand that the field for their Dream, the stage where they have painted themselves white, is the deathbed of us all. The Dream is the same habit that endangers the planet, the same habit that sees our bodies stowed away in prisons and ghettos. (p. 151)

This Dream embodies ideologies stretching from Manifest Destiny to American exceptionalism, asserting the entitlement of white men to conquer, own, and exploit anything and anyone. This link between abusing human beings and the planet reflects a destructive ideology that uses violence to objectify, mistreat, and profit from other people and nature. Understanding this connection is essential for people to see how environmental justice and social justice are intimately intertwined and cannot be separated. Klein (2014) states,

Fundamentally, the task is to articulate not just an alternative set of policy proposals but an alternative worldview to rival the one at the heart of the ecological crisis--embedded in interdependence rather than hyper-individualism, reciprocity rather than dominance, and cooperation rather than hierarchy. (p. 462)

Klein warns that “an unshakable belief in the equal rights of all people and a capacity for deep compassion will be the only things standing between civilization and barbarism” (p. 462). It is the role of the educator to guide students to explore these connections and discover the interdependence humans have with nature, not because it is required in State mandated standards, but because it is essential in order to sustain human life on this planet.

For centuries, indigenous communities have been on the front lines of this battle for environmental justice, since they have been the targets of imperialism and colonialism. Māori

physician and educator Rhys Jones explains, “Climate change is interlinked with colonialism. This is a moral crisis, whose impact is not felt equally. The confiscation of indigenous lands led to modern capitalism and industrialization” (Chitnis, 2017). Jones argues that in the fight against climate change, preserving indigenous worldviews and knowledge is essential. North American scholar Four Arrows (2018) points out that the ideologies that arrived with colonialism, such as the Doctrine of Christian Discovery and Manifest Destiny, continue to dominate the Western world, normalizing hierarchies of power that treat the natural world as a limitless resource to be controlled and exploited by humans. Four Arrows (2018) states,

Traditional, nonhierarchical Indigenous approaches to learning about the life skills and values hold the idea of being intimately related to nonhuman life forms as paramount. Honoring and learning from animals, plants, bodies of water and the organisms that dwell in them remains inseparable from any learning experience and from any ultimate application of learning. Moreover, an Indigenous perspective sees humans as the younger brothers and sisters of the nonhuman elders of creation, and the nonhuman elders as our teachers.

Respect for nature and the humility to recognize that humans have much to learn from the plants and animals are concepts that run counter to colonialist ideologies. Four Arrows asserts (2013) that all humans at some point in time lived in the same “place long enough to understand how to exist in relative harmony with the rhythms of the natural world. This nature-based knowledge is in our DNA” (p. 2). And yet, the influence of the systems and structures of imperialism, colonialism, and capitalism have not only used up and polluted vital natural resources, contributing to our current climate crisis, but the ideologies that have supported those systems have disrupted the harmony we once had with nature. A landmark report by the United Nations’ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2019) warns that “nature is declining globally at rates unprecedented in human history” and calls for “transformative change.” Four Arrows (2019) explains that the main message from the UN report, which the mainstream media missed, is “that such transformative change is largely about indigenizing our systems and institutions. It is about a worldview that connects us to nature.” In order to regain that sense of balance with the natural world, an indigenous nature-based worldview offers us a deeper understanding and respect for our interconnectedness with nature.

Educational Responses to Environmental Injustice

The interconnectedness of humans and nature is a key concept of environmental education that can lead to an empathetic understanding of our role as stewards, interdependent on the ecosystems that sustain life on this planet. Ken Winograd (2016) writes, “*Healing the environmental crisis and healing social injustice are mutually reinforcing and interrelated goals*” (p. 9). Green and Brody (2016) describe environmental education as a series of stages of identity development that move from education *in* the environment to education *about* the environment and finally to education *for* the environment.

Confronting actual problems is a pedagogical strategy that Dewey (1956) and Freire (2010) argue is essential for education to be meaningful and empowering. A key aspect of sociocultural theory, according to Vygotsky (1978), is the notion that students construct knowledge and make meaning through linguistic mediation, something embedded in collaborative project-based learning. Noddings (2003) has written extensively on the importance of relational caring between students and teachers, and in her more recent work she highlights the importance of developing caring relationships with the natural world as well. She (2016)

writes, “Surely it is reasonable to hope that a good education will lead to a good job, but a good education should do more than that” (p. 20). Noddings explains that a richer, fuller life requires an education that helps children to “know and love the natural world” (p. 21). She asserts:

We need to remind ourselves of what Dewey described as the four-fold interests of children; communicating (talking as well as listening), making things, inquiring, and expressing themselves (1990/1902). Active involvement with the natural environment provides wonderful opportunities to engage all four interests. (2016, p. 21)

The following are examples of what this looks like in practice in urban elementary schools.

Busting Up Hardscapes to Grow an Ethic of Stewardship

Located in the heart of downtown Los Angeles is an elementary school named after Leo Politi, a local author and illustrator of numerous children’s books. Politi Elementary is a PreK-5th grade public school serving more than 700 students, mostly low-income first and second-generation immigrants from Central America. Nearly all the students live in apartment buildings around the school, in an area which lacks open spaces and neighborhood parks.

In 2008, Brad Rumble became principal of Leo Politi. He had come to realize that the students he served were living their lives on hardscape. Most begin their days in crowded apartments within concrete buildings on asphalt lots. They walk on concrete sidewalks and asphalt streets to their school, where they encounter large expanses of asphalt playgrounds. At the end of the day, they return home to the same hardscape they woke up to.

Rumble knew he could not make the community any less park-poor, but he could effect change on his eight-acre campus. He also realized he could not do this alone. Rumble had learned from prior experiences that there are local experts outside the realm of elementary education who passionately want to support positive change on school campuses. He connected with a local non-profit, the Los Angeles Audubon Society, which in 2008 was seeking to partner with a school on an application for the U.S. Fish and Wildlife Service Schoolyard Habitat Restoration Program. This program supports efforts to convert a portion of a school’s outdoor space from hardscape to natural so that it can become a living laboratory for students.

The Los Angeles Audubon Society already had a robust extra-curricular program for urban high school students, which engaged them in the study of native plants and ecosystems above Los Angeles at Baldwin Hills Scenic Overlook. The high school students had become experts on the flora and fauna of Los Angeles and how to support them. Now they had a hands-on project at a local elementary school. The high school students visited Leo Politi after school to work with a large group of upper-grade elementary students to determine the soil type and plant palette for a 5,000 square foot unused portion of the campus which, at that time, was nothing more than dying Bermuda grass and a concrete slab once destined to be a reading garden. As the older students worked with the elementary students, the city of Los Angeles began to seem a lot smaller to all of them. At Leo Politi, the high-schoolers applied their learning about habitats and restoration, and were able to share their knowledge with a younger audience. Furthermore, each community member had a role within the work of the garden.

Much like Barbara Rogoff’s (1994) description of a community of learners, the high school and elementary students at Politi participated in a meaningful shared endeavor. Rogoff writes, “I take the perspective that learning is a process of *transformation of participation* itself, arguing that how people develop is a function of their transforming roles and understandings in the activities in which they participate” (p. 209). This is a shift from seeing learning as just a process of transmitting information from one person to another or discovering information on

one's own, to also recognizing "learning is a process of transforming participation in shared sociocultural endeavors" (Rogoff, 1994, p. 210). At Leo Politi, high school students worked together with elementary students, participating and bonding as they created a natural habitat out of a neglected patch of weeds.

On Saturdays in the autumn of 2009, Leo Politi's staff, parents, and families worked side-by-side with Los Angeles Audubon Society volunteers to prepare the land for planting. As the school community worked the land, they became closer. On November 7, 2009, about 300 people gathered for Planting Day. The land was divided into planting squares, and a high school student was responsible for leading the effort in each square. At the end of the day hundreds of native sages, shrubs, and trees were planted. That spring—and every spring since—high school students have returned to Leo Politi for a Science and Art event celebrating the habitat and the student work it fostered. The high school students have also returned each fall to cultivate the habitat, alongside the Leo Politi school community, and to engage elementary students in nature games and activities. The high school students' work on the elementary campus also became a part of their university applications.

"Build it and they will come" was heard often after that. First came the insects—butterflies and other pollinators. "It's like they were lying in wait," recalls Margot Griswold, the visionary restoration ecologist who has guided the work of the Los Angeles Audubon Society. After the pollinators came the birds; Yellow-rumped Warblers, Anna's Hummingbirds, Northern Mockingbirds, House Finches, Bushtits—the birds showed up and stayed. Right there, observing them on their campus, were the students. No longer did they need to board a bus to observe such things; it was all unfolding right outside their classrooms.

The habitat became a canvas for educators, and a living laboratory for students to explore. A mixture of science lab and multi-purpose room, the habitat has been used for daily observations—spoken, written, photographed, and drawn. Life science explorations in the classroom? Head for the habitat. Explorations of change over time? Habitat. The conversations this natural laboratory inspires are powerful. Students compare and contrast, they describe, and they wonder. They head to the nearby library to gather more information on something they just observed. Other uses of the habitat were less expected. For socio-emotional learning, the habitat has been a calming influence on all—including staff members. It is a place to wander and reflect. The presence of nature on campus has instilled a "pride of place;" it is a part of the school culture. In addition, teachers of two populations—students with special needs and pre-K students—consistently share how their students are drawn to the habitat and take so much from their time there. The different uses of the habitat contributed to developing a culture of biophilia and a notion of environmental stewardship.

The work at Leo Politi occurred at a time of declining financial resources for public education in California. The school leveraged the available resources of time and space—campus space—to improve outcomes for students. One measurable outcome is the California Standards Test (CST) grade 5 science scores. In spring of 2009 only 9% of 5th grade students at Leo Politi scored "proficient" in science, and none at "advanced." Within three years of the native habitat work, 52% of 5th grade students scored proficient and advanced.

Rumble knew that the Politi example was powerful, but he wondered if it would continue under new leadership, and whether he could replicate the work on another campus. In July 2014, he moved a mile northeast to Esperanza Elementary, a struggling school in the Westlake neighborhood, just a few blocks from MacArthur Park and in clear view of the downtown skyscrapers.

Rumble began at Esperanza by working with one grade level on a particular aspect of the neighborhood. The third-grade teaching team collaborated on a multi-week unit of inquiry around two duck species found in the lake at MacArthur Park. The Mallard is a dabbling duck that lives there year-round, while the Ring-necked Duck is a diving duck found there only during winter. The third-grade students started to birdwatch on Esperanza's campus to hone their skills for a series of three seasonal observations at MacArthur Park. Each time, they recorded their findings, a process which involved negotiation, description, and attention to detail. This work brought the students and teachers much closer together and fostered a sense of wonder about what's outside. As Rumble had done at Leo Politi, he sponsored a campus contest to predict the date for the return of the Yellow-rumped Warbler, a migratory bird which, much like the Ring-necked Duck, is on the coastal plain of Los Angeles only during winter.

At the same time, Rumble saw the unexpected removal of a large two-classroom bungalow as an opportunity. Working with the school district, he arranged for the extraction of more than 6,000 square feet of asphalt. This included about 4,500 square feet where the bungalow had been, as well as more than 1,450 square feet of asphalt along the north edge of the faculty parking lot facing Wilshire Blvd. In October of 2016, the Los Angeles Audubon Society's high school students again took the lead in working side-by-side with the staff and families of Esperanza Elementary in planting a new schoolyard habitat where the bungalow classrooms had once sat atop asphalt. Along Wilshire Blvd., a neighboring company supported the planting of a native California habitat by the botany team of Rancho Santa Ana Botanical Gardens.

Accompanying the physical conversion of some hardspace into a natural habitat, Esperanza Elementary began to implement a host of environmental activities to develop a culture of biophilia and stewardship (see [video](#)). Teachers have used the habitat to address learning in language arts, English language development, and social studies, as well as science. They have engaged students in bioblitz activities and the study of pollinators, the food chain, and ecosystems. Those studying the history of Native Americans can now take the learning outside to experience what California was like before European settlement. An ever-changing interactive bulletin board was mounted in the main hallway to enable students and others to record their on-campus observations. So many species of birds have been observed and recorded, Cornell University has made Esperanza Elementary a Birding Hotspot on their eBird.org platform. On [iNaturalist](#), students have documented evidence of biodiversity in their habitat, including regular observation of Marine Blue butterflies and Sonoran Bumble Bees.

When an uncommon visitor, a migrating Common Poorwill, appeared on the playground just a few yards from the Halloween Parade festivities, students stopped what they were doing and calmly observed the species just as ornithologists would. The bird spent the entire school day there, unperturbed. And a Burrowing Owl overwintered for 31 days on the campus. Having an owl just a few feet above students might be a problem on some campuses, but because there is a schoolwide culture which celebrates the observation of nature and the importance of stewardship, the owl was able to stay without incident. In fact, the student council decided to change the mascot of the school to the Esperanza Owls.

At both campuses, teachers are at varying levels of familiarity with taking the learning outside and developing environmentally conscious citizens. Rumble recognizes the need for professional development to build their knowledge base around this, but there are challenges. Perhaps the greatest obstacle is the lack of time due to the demands placed on teachers, such as increased assessments, new standardized curricular materials, and teaching strategies which

undervalue ecopedagogy. And yet, Rumble sees the potential for environmental education to be integrated into ongoing professional development in all subjects. Just as individually and collegially, teachers are intentional in their planning of questions and opportunities for students to engage in different forms of discussion, they also can become intentional in their planning for opportunities to take the learning outdoors to develop a love of nature and an understanding of stewardship. In densely populated communities where pollution levels are high and families' access to green space is low, environmental education is intimately linked to numerous social justice issues that students can be investigating and addressing. As the climate crisis intensifies the negative effects of extreme weather, heats up oceans to become more acidic, disappears habitats, disrupts agriculture, and contributes to famine and refugee crises that are impacting the poor and most marginalized first and worst, environmental awareness and a critical consciousness have never been more necessary (Beach, Share, & Webb, 2017).

A New Teacher's Journey to Bring Environmental Justice to Fifth Grade

As a first-year teacher, Lizzette Mendoza taught fifth grade in Southeast Los Angeles, about three miles from the Los Angeles River. She centered her teaching on how nature operates in the local area in order to help her students develop identities as environmental activists through writing. A central goal of ecopedagogy is for students to identify environmental issues as well as create and discuss possible solutions to these problems (Kahn, 2010). During a nine-week unit on environmental justice, Mendoza's fifth graders made campaign posters, wrote letters to community members, and created children's books to share with their school community.

During the first week of the unit, the students took nature walks around their school campus, exploring their relationships to nature. In class, they talked about where nature can be found in their community. Students discovered nature in the school garden, in their backyards, and at several stops on their walk to school. Mendoza's students wrote to and about nature in order to explore how they thought nature existed in their neighborhood and whether they liked being in natural environments. Several class discussions were particularly important, given the unit of study's emphasis on defining local environmental problems and engaging in writing to create solutions to those problems. Mendoza followed the Freirean (2010) understanding that "...problem-posing theory and practice take the people's historicity as their starting point" (p. 84). Class discussions began with the students' place in the community and the community's place in the larger society. Students started to understand nature as something that exists locally and is endangered.

During the second and third weeks, the class looked at concepts of waste. Having studied the process of recycling earlier in the year, they now looked more closely at what recycling does for a community and how it might be a better alternative to filling up landfills. At this point, several students were against using landfills and opposed to recycling. They had studied the negative side-effects of recycling centers, such as the health impacts felt in lower income communities due to the pollution these centers bring. They also began to talk more about their experiences reusing items. Some students shared about their visits to recycling centers and how some of their families have made money by recycling. Through problem-posing pedagogy, students came to realize that waste is quite complicated and that it affects groups differently. They understood that recycling is not a simple solution to waste because they were able to talk about its consequences, particularly in their neighborhood.

Towards the middle of the unit, Mendoza's class focused their work on the LA River, a local natural resource, and talked about how it has been treated by different groups of people. They looked at similarities between the LA River and the Nashua River in Massachusetts by reading *A River Ran Wild* by Lynn Cherry (2002). This beautifully illustrated children's book describes the true history of a river from the first indigenous people who lived in harmony with it to the contamination of the river from urban industrialization. Ultimately, the book recounts the work of environmentalists who fought to change laws and build coalitions to clean the water and protect the river. Mendoza's students pulled information and class experiences to map out what is near the LA River in their community and in surrounding cities. In class, Mendoza used Google Earth with her students to move virtually from their school site to the LA River, three miles away. Their journey took them up the river through several hardscapes. Students were able to analyze the demographics of their neighborhood, a mostly Latino and low-income community, alongside the fact that their river is barricaded with concrete and surrounded by factories. With this new understanding of the proximity of a polluted natural space to their community, the students continued to develop and exhibit a need to conserve and protect nature. Students compared and contrasted two very different photos of the river, one from the Upper LA River (green with vegetation and people kayaking) and one from the Lower LA River (seemingly desolate and covered in cement). After discussing the relationships between the LA River and the communities it passes through, students created Wanted Posters for their ideal LA River or for an LA River Advocate.

The following week, students tested the water quality at their school with simple water-testing kits, which registered negative for lead and pesticides. Mendoza helped organize an LA River Clean-Up event that some students participated in on the weekend and tested the water there as well. The following week, student experts shared their knowledge with the rest of the class. After testing water from the LA River, which was visibly polluted, and receiving negative results for pesticides and lead, the students discussed finding different ways to test with higher-quality testing kits, and have their entire community test water sources. The students felt empowered to continue their work and do even more for their community.

Week Five focused heavily on what it means to be an activist. A guest speaker from *Communities for a Better Environment*, a neighborhood environmental justice group, spoke to the class about local pollution. The students had studied the work of the Native American Water Protectors at Standing Rock and Mendoza wanted them to have a better understanding about local environmental activists. They read an article about five environmental activists in Southeast Los Angeles along with *Mayah's Lot* (LaGreca & Bratspies, 2012), a [graphic novel](#) about a high school student who imagines herself as a superhero for her community. At the end of the week, students created visual representations of themselves as activists, superheroes for their community.

This unit of study provided a space for students to explore and express environmental activism throughout the school day. Students identified themselves and their classmates as activists in their journals, books, and letters. While they did not always use the term "activist," it was clear that they saw themselves as people who can help their community. They placed considerable value in the definition of an activist that they created together in the classroom. In a journal response, they were asked, "Have you been an activist? If so, when?" Only three students said that they had not been activists. Several students included classroom experiences as examples of their activism. Roberto wrote, "I have been an activist when I went to the LA River

Clean-Up. I clean up the 710 freeway and tested the water. You don't need to do a big thing to be an activist." Students recognized their everyday actions as activism.

With grounding in ecological issues facing their local community and an understanding of the importance of sharing information, Mendoza's students embarked on two integrated language arts projects: writing persuasive letters to local community members and creating children's books to share with their school community. To close the unit, Mendoza's fifth-grade students shared their children's book with a kindergarten class. This involved synthesizing their learning about environmental justice, choosing one aspect that resonated most to them, and translating it for a younger audience. It took place right before spring break in order to encourage their younger audience to become involved and look for nature all around them. In a journal entry, students wrote about why it is important to share information. Their responses reflected the importance of being an activist in their own community. Students described how sharing information allows communities to work together to create solutions to environmental problems. Sara expressed, "It is important to share info. with our community because the community has the right to know and figure/sort out any solutions." Sara considers information a "right." This suggests the development of *ecoliteracy* (Kahn, 2010) as students make it clear in their writing that combatting environmental issues is central to working towards social justice. The students made connections with sharing information and community improvement. They began to understand information as empowerment and to see how that could be a form of activism.

Students also wrote persuasive letters to community members about the various ecological issues they studied. Some students connected environmental concerns with public health. Flor wrote about how litter can leave toxins in spaces where children play. She wrote, "...the toxins going inside our dirt where we plant our stuff that we play with in Lynwood Park might have toxins from litter that could have been recycled." Flor discussed the connection between taking care of the environment and taking care of the people who occupy it. Several students became advocates for their community's right to clean air and water. Twelve student writers encouraged other students to get involved in environmental activism. Karina, asked the superintendent to provide student access to quality water testing kits so that students could verify the safety of their water. She wrote, "...if kids do not know their water has lead or pesticides they can drink it and get very sick. That's why it's important that all kids should know if their water is clean..." Karina connected water to the safety of her community, and specifically, her peers. This chance to write a persuasive letter with a genuine purpose allowed her to address a topic she was passionate about and send it to an actual decision maker. The students felt empowered to do something about the injustices around them. This empowerment and engagement in local decision-making encouraged students to stand up for their community in a tangible way.

While students were beginning to explore their agency as environmental activists, some also saw how environmental problems are interconnected with other social issues. Many students looked at economic interests in their writing throughout the unit. Kahn (2010) explains the importance of combining sustainability with politics to transform education for a more sustainable planet and liberated communities. Some students took particular interest in looking at the economic struggles of homeless people in their community alongside environmental issues and tried to address both in their children's books. One student, Mariela, consistently addressed the issue of homelessness and in her book *Helping the Homeless Guy and Cleaning the LA River*, she and her friends start an LA River Clean-Up and notice a homeless man living along the river. After cleaning up the river, they help the man get a job and, at the book's conclusion, they find

him in his new home. In her letter to nature that all the students wrote at the beginning of this unit, Mariela had mentioned that she was troubled by the way homeless people suffer because of nature. In her re-imagined Los Angeles River, she specifically planned shelter for homeless people living along the river. She addressed larger social justice questions through specific environmental issues. Students had previously studied the Universal Declaration of Human Rights, where they learned that everyone has the right to a home. Through this unit, they developed an understanding of local homelessness and started to make connections between economics and the environment.

At the end of the unit, Mendoza had her students write to nature once again. These final letters demonstrated a shift in their understanding of nature, from a place to enjoy oneself, despite unpleasant bugs and rodents, to a place in need of their stewardship. Noddings (2016) explains that aversions to nature, or biophobia, result from unpleasant experiences in nature and can be lessened with opportunities to explore nature. In their first letters to nature, student complaints ranged from stinging bees to “gross-looking rats.” Some students also saw nature as a force that not everyone can be protected against. When students penned their last letter to nature, after studying local environmental issues, their writing reflected a greater appreciation of their environment. Students who voiced complaints, described the pollution of the environment caused by people. Students also wrote about their plans to help nature. Janet wrote, “Many people wouldn’t care about the earth or animals. I don’t know why. I try to help clean but I don’t want any germs. My classmates/friends are also trying to help too! I hope we can do something about this.” She still exhibits some biophobia through her dislike of germs, but this is overshadowed by “an active commitment to the health of Earth arising from a mature biophilia” (Noddings, 2016, p. 19). Students began to see themselves as stewards, responsible for the care of their environment.

In this Anthropocene era in which people’s actions are changing the planet and climate, students need to learn about the natural world that surrounds them and be provided with a variety of opportunities to become part of the solution for the environmental problems they discover. These opportunities must be taught with the explicit goal of nurturing optimism for the future of the environment, particularly as it exists in their community. With their home at the center of this unit of study, the students were more engaged with their writing and understood its importance in their future. Radbourne (2016) explains that the importance of place-based education is that it encourages students to work on issues in their community. It is important to make room for children to write about their home, to imagine different possibilities for that home, and to support them in sharing their ideas with the people they live with. Mendoza’s students used their community as a setting in their books and a focus of concern in their persuasive letters. They also imagined themselves and their friends as environmental leaders. The students were empowered as environmental activists to use their writing skills for authentic purposes with audiences beyond the classroom.

Conclusion

From the examples discussed—a principal creating natural habitats in urban schools as laboratories for ecopedagogy, and a new teacher guiding students’ development into environmental activists—it is clear that educators have a powerful role to play in the fate of our planet. Critical pedagogy and environmental justice are profoundly connected and essential for bringing ecopedagogy into educational institutions in ways that can develop biophilia and environmental stewardship. Ecopedagogy invites students to experience nature as a positive

force in their lives and understand the delicate balance of the earth's natural systems. This awareness and disposition can lay an ideal foundation for the work of critically analyzing media messages about the environment and sustainability. Since it is their future at stake, youth must become environmental activists, empowered to challenge unsustainable practices and promote social justice that is intimately linked to all life forms on Earth.

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Author Biographies



Lizzette Mendoza grew up in Long Beach, CA, not far from the Lower Los Angeles River. She received her master's degree in education in 2017, focusing her thesis on ecopedagogy. She currently teaches first grade in the Florence-Firestone neighborhood of Los Angeles at Parmelee Avenue Elementary School and continues to work with her students in studying the natural environment in their community.



Brad Rumble is a graduate of UCLA and has served at three elementary schools in the urban core of Los Angeles during his 29-year career with Los Angeles Unified School District. In his first principalship at Leo Politi Elementary, he collaborated with the Los Angeles Audubon Society on the transformation of unused campus space into a native habitat for student study. He was able to do the same at his current school, Esperanza Elementary in the Westlake neighborhood of downtown Los Angeles. He is a national fellow of America Achieves and has served on the Principals' Advisory Board of Scholastic Book Fairs and the Board of Directors of the Los Angeles Audubon Society.



Jeff Share is a Faculty Advisor in the Teacher Education Program at the University of California, Los Angeles (UCLA). His research and practice focus on preparing educators to teach critical media literacy in K-12 education, for the goals of social and environmental justice. An updated second edition of his book, *Media Literacy is Elementary: Teaching Youth to Critically Read and Create Media*, was published in 2015. Two years later Routledge published the book he co-wrote with Richard Beach and Allen Webb titled, *Teaching Climate Change to Adolescents: Reading, Writing, and Making a Difference*. Collaborating with Douglas Kellner in 2019, they published, *The Critical Media Literacy Guide: Engaging Media and Transforming Education*.



UCLA undergraduate students enrolled in an Environmental Justice class visit Esperanza Elementary school to observe elementary school students sitting on the ground learning about nature in their natural habitat. Photo by Jeff Share.