

Peaks and Valleys: A landscape study of environmental literacy implementation in and out of California's TK-12 classrooms

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Executive Summary

For decades, Californians — like populations around the world — have been experiencing the ramifications of centuries-long environmental destruction. Children and youth across the state have demonstrated their deep concern and urgent desire for action through grassroots organization as well as advocacy for both environmental and climate justice and conservation. Yet it is unclear whether opportunities to develop the knowledge and skills to be environmentally literate, and then to take action to address environmental issues based on that literacy, are available to all children and youth across California — particularly in TK-12 formal schooling. This California Environmental Literacy Landscape Analysis study — initiated by CAELI and Ten Strands and carried out in partnership with The Lawrence Hall of Science — aims to determine the extent to which environmental literacy is being implemented both inside and outside classrooms across the state.

Methods

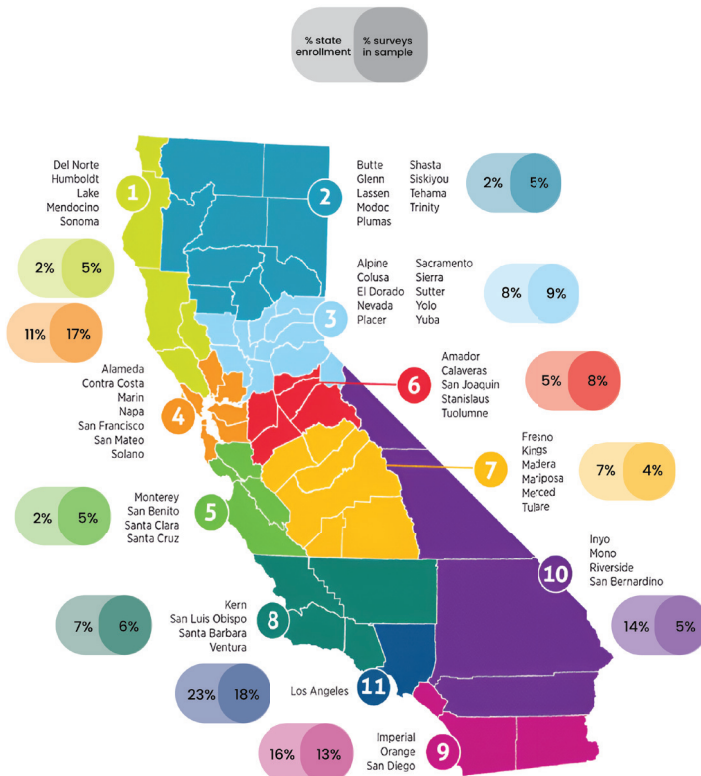
For this survey, we constructed a multifaceted definition of environmental literacy, based on key documents and frameworks in two sources: California: [A Blueprint for](#)

[Environmental Literacy](#), legislation and Education Code revisions (SB720), and the [Green Ribbon Schools](#) award program. Recruitment for participation in this landscape analysis occurred from October 2023 through January 2024 and leveraged the networks of the California Environmental Literacy Initiative (CAELI). The study aimed for a sample that was representative of the state of California. To do so, recruitment was stratified by region based on the [California County Superintendents regions](#) and cross-checked against the [2020 Census regions](#).

SAMPLE

We received 1,080 valid surveys from 909 educators and 171 administrators. The surveys were approximately representative of California in terms of region, school type, and educator characteristics. About two-thirds of responding educators teach science. There was a relatively even distribution of grades taught by responding educators (TK-12), with TK-2 slightly underrepresented. Educators responding to the survey teach approximately 80,000 students across California. The sample was skewed to individuals with a predisposition toward environmental awareness, so results may overestimate the level of implementation of environmental literacy learning experiences around the state.

Figure 1. Regional Enrollment and Survey Representation



in the capacity of both community-based partners and education systems to collaborate.

- School campus sustainability policies and initiatives provide real-world learning opportunities if schools can leverage them as a foundation for environmental literacy experiences for children and youth as well as for professional learning for adults.
- High school educators teach about climate change, but educators in the earlier grades need more support.

OPPORTUNITIES

- Students need more access to outdoor environmental literacy experiences.
- Educators need support to consider the intersections of race, culture, and environmental literacy.
- The formal education system needs to invest in meaningful partnerships with Native communities that enhance the capacity for relationship building with tribal communities and engage Native American leaders and educators in integrating Traditional Ecological Knowledge.
- Educators and administrators alike need additional curricula and instructional materials that integrate environmental literacy.
- Educators and administrators also require time to engage in professional learning experiences that build capacity for environmental literacy.

Core Findings

The data reflect the extent of environmental literacy instruction across various dimensions of the TK-12 field, both revealing promising trends and indicating widespread engagement with environmental literacy initiatives throughout the state. However, they also point to areas where improvement is needed to ensure comprehensive and equitable instruction.

PROMISING TRENDS

- Momentum toward having a critical mass of educators with expertise in implementing environmental literacy has been building, and achieving such a mass is shown to be possible in all grade levels and subject areas. We now need to make better use of structures and forums to build capacity by sharing this expertise.
- Environmental nonprofits are a critical component of California's statewide infrastructure (with some notable exceptions). Therefore, we should invest

Conclusion

Given the range of statewide policy documents, various instructional materials requirements, and the demonstrated expertise of many educators and administrators, we believe there is a strong foundation for environmental literacy in California. However, to reach the vision set forth in the California Blueprint for Environmental Literacy, there must be a significant investment in broader implementation and scale. While there are many promising trends and room for growth in this dataset, perhaps the most promising of all is that 83% of educators and 84% of administrators want more environmental literacy! It is critical, for the health and well-being of our children, youth, communities, and California's vast ecosystems, that we, collectively, respond to this call and provide the resources that our state's schools need in order to integrate environmental literacy and sustainability across their communities.