

**Gerald A. Lieberman, Ph.D.**  
Director  
State Education and Environment Roundtable  
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## **SUMMARY OF PROFESSIONAL EXPERIENCE**

Dr. Gerald A. Lieberman is an internationally recognized authority on school improvement using natural and community surroundings as interdisciplinary contexts for education. He led the development of the innovative educational strategy called EIC Model™, using a school's local Environment as the Integrating Context for learning and, more recently, the development of the curriculum for the State of California's Education and the Environment Initiative. Dr. Lieberman's recently released book, [\*\*Education and the Environment: Creating Standards-based Programs in Schools and Districts\*\*](#), offers key strategies for getting buy-in from school and district administrators, and teachers in connecting nature and the environment into their classroom studies.

During the past ten years, Dr. Lieberman served as the principal consultant for the State of California's Education and the Environment Initiative (EEI). The EEI is a cooperative endeavor of the California Environmental Protection Agency, the California Department of Education, the State Board of Education, the Governor's Secretary of Education, the Integrated Waste Management Board and the Resources Agency. Dr. Lieberman led the development of the State's approved "Environmental Principles and Concepts" the plan for the "EEI Curriculum." In 2010, this standards-based curriculum was completed and approved by California's State Board of Education. The EEI Curriculum is now being disseminated to K-12 classrooms throughout California. The EEI Curriculum is available for downloading at [www.californiaeei.org](http://www.californiaeei.org).

In 1995 Dr. Lieberman founded and has since directed the [State Education and Environment Roundtable](#) (SEER), originally a cooperative endeavor of departments of education in 16 states. SEER now works directly with schools to help them meet their academic goals through a process of continuous improvement based on the EIC Model™. SEER's work was sponsored by [The Pew Charitable Trusts](#). [The Education Commission of the States](#) recognized SEER's EIC Model™ as a "promising practice... that shows evidence of success in improving student achievement."

Over the past 30 years, Dr. Lieberman has created and conducted professional development programs for more than 9,000 educators and other professionals, working with formal education systems at local, state, national and international levels. He has designed and coordinated curriculum development programs in the United States, Costa Rica, Honduras, Colombia and Argentina. During the past five years, Dr. Lieberman has focused his work on professional development programs that help schools achieve school improvement goals through implementation of the EIC approach.

Dr. Lieberman is the principal author of [Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning](#), a ground-breaking, national study that received an award from the [National Environmental Education Foundation](#) for "bringing environmental learning into the mainstream of American K-12 education." He has authored 40 other major reports, books and articles on subjects related to environment-based teaching strategies and environmental science.

Dr. Lieberman received his Ph.D. and M.A. from Princeton University and his B.A. from U.C.L.A. He is a past Chair of the Commission on Education of IUCN, the World Conservation Union.

## **CHRONOLOGY OF PROFESSIONAL EXPERIENCE**

<b><u>Director</u></b> - State Education and Environment Roundtable Poway, California	1995 - present
<b><u>Consultant</u></b> - California Education and the Environment Initiative, Sacramento, California	2013
<b><u>Principal Consultant</u></b> - California Education and the Environment Initiative, on behalf of the California Environmental Protection Agency Sacramento, California	2003 - 2010
<b><u>President</u></b> - Pride of Texas Conservation Fund, Ft. Worth, Texas	1990 - 1991
<b><u>Adjunct Professor</u></b> - Department of Wildlife and Fisheries Texas A&M University, College Station, Texas	1990 - 1992
<b><u>Chairman and Co-Founder</u></b> - Zoo Conservation Outreach Group American Association of Zoos and Aquariums	1989 - 1991
<b><u>Executive Vice President</u></b> - Fossil Rim Foundation, Glen Rose, Texas	1988 - 1990
<b><u>Vice President</u></b> - World Wildlife Fund, Washington, D.C.	1985 - 1987
<b><u>Chairman</u></b> - Commission on Education International Union for the Conservation of Nature, Switzerland	1984 - 1986
<b><u>Co-Chairman</u></b> - Tropical Rain Forest Working Group IUCN Commission on Education	1982 - 1984
<b><u>President</u></b> - RARE Inc., Washington D.C. and New York, New York	1981 - 1985
<b><u>Consultant and Co-Founder</u></b> - Environmental Systems Associates Minneapolis, Minnesota	1979 - 1980
<b><u>Biological Sciences Team Leader</u></b> Minnesota Environmental Quality Board, St. Paul, Minnesota	1976 - 1979
<b><u>Ecologist/Principal Investigator</u></b> - The Nature Conservancy Arlington, Virginia	1974 - 1976
<b>ADVISORY COMMITTEE MEMBERSHIPS</b>	
<b><u>Captain Planet Foundation</u></b> Board of Directors and Executive Committee	2008 - 2011
<b><u>Alliance to Save Energy</u></b> California Green Schools Advisory Council	2005 - 2009
<b><u>The Keystone Center</u></b> Board of Directors	2002 - 2008
<b><u>National Environmental Education and Training Foundation</u></b> Executive Committee, National Education and Environment Partnership	2001 - 2002
<b><u>California Department of Education</u></b> Superintendent's Environmental Education Task Force	2000 - 2004
<b><u>San Diego Foundation</u></b> Environment Working Group	2000 - 2004
<b><u>Mountain Empire Unified School District</u></b> Environment 21 Advisory Committee	2000 - 2001

## **EDUCATIONAL BACKGROUND**

**Ph.D. in Biology** from **Princeton University**, Princeton, NJ, October 1974. Studies emphasized ecology and population biology. (Awarded at age 23) Supported by Ford Foundation Research Fellowship.

**M.A. in Biology** from **Princeton University**, Princeton, NJ, April 1974.

**B.A. in Zoology** from **University of California** at Los Angeles, December 1971. Received UCLA's 1971 Undergraduate Research Award.

## **EXAMPLES OF SPECIFIC, KNOWLEDGE, SKILLS AND EXPERIENCES**

### **Curriculum Design and Development**

- Served as the principal consultant for the development of the **State of California's Education and the Environment Initiative Curriculum**. Led the development of the state's EEI Curriculum, approximately 25,000 pages of K-12 instructional materials in 85 units that were approved by the State Board of Education for use in California's public school system.
- Created the **nationally recognized educational strategy called the EIC Model™** (using the Environment as the Integrating Context for learning).
- **Created and co-authored the "Resources Management Education Program" (RMEP)** a Spanish language curriculum guide for 1st – 6th grade teachers in Central and South America. Costa Rica's Ministry of Education implemented this program in all elementary school classrooms. The RMEP was also adapted for use in Colombia, Argentina and Honduras, and translated to Portuguese for use in Brazil. This five-year program trained approximately 8,000 teachers, 200 education professionals and influenced over 25,000 students.
- Developed the **implementation plan for America's Ocean Challenge to establish a K-12 school education program** ocean to complement there IMAX and high-definition film related to ocean conservation.

### **Education Project Design and Management**

- Served as the principal consultant for the development of the **State of California's Environmental Principles and Concepts** under the Education and the Environment Initiative that became law in 2003. Lead the development of the Environmental Principles and Concepts and designed the plan for creating the State's EEI Model Curriculum. (California Environmental Protection Agency and Integrated Waste Management Board)
- Created and organized the State Education and Environment Roundtable (SEER), a **cooperative effort of state education agencies from 16 states**. SEER was established in 1995 with funding from The Pew Charitable Trusts and was initially administered by the Council of Chief State School Officers. Its goal is to improve learning by integrating environmental education in K-12 curricula and systemic reform efforts. SEER's staff coordinate professional development activities, research programs, and dissemination of technical resources.
- **Studied public aquariums** in the United States and Canada and designed **an action plan for marine conservation and education**, to increase involvement of aquariums in conservation. (Pew Charitable Trusts, David and Lucile Packard Foundation and Curtis and Edith Munson Foundation)
- Conducted **studies of natural resources management and training needs**, on behalf of the U.S. government, in Panama, Peru and Honduras. Funding of approximately \$1,500,000 was provided to implement recommendations. (USAID)
- Designed and managed a \$1,000,000, U.S. government funded **program to strengthen non-profit organizations in Panama**.
- Planned and **provided on-going technical assistance** for a \$225,000 organizational development program in Honduras.
- Provided **management oversight and on-going evaluation** of project activities conducted by recipients of over 40 grants, ranging in size from \$1,000 to \$25,000, in Latin America and the Caribbean. (World Wildlife Fund, RARE)
- Designed and supervised a 4 year **research program involving biological studies**, chemical pollution and public health. (Minnesota Environmental Quality Board)

### **Professional Development and Training Programs for Educators**

- Designed and operated **SEER's national network of State-based EIC Model™ Demonstration Schools** currently involving over 600 teachers, in 100 schools in 10 states.
- Served as the **principal consultant for the educational development and implementation plan of the California Integrated Waste Management Board's School DEEL Program**, recruited 20 California school districts to participate, and oversaw the professional training and technical support for the 40 schools that participated in this two-year program.
- **Taught an on-line graduate course** for Hamline University Environment as an Integrating Context.
- **Organized professional training programs for teachers and environmental specialists** from 13 countries in Latin America and the Caribbean. Professionals trained in these programs developed and implement education programs in their countries. (USAID, World Wildlife Fund, RARE)
- **Designed and provided an 18-month training program for professionals** from 8 Caribbean countries. (USAID)
- Developed a **youth leadership training program** with participants from 18 countries. (IUCN, UNESCO, United Nations Environment Programme)
- Conceived and developed a primary school environmental education curriculum and **teacher training program** which was implemented throughout Costa Rica, and in Colombia, Brazil, Argentina and Honduras. (RARE and World Wildlife Fund)
- Planned a 4 year, \$1,000,000 program for **training of local specialists**, women and the indigenous people of Panama in natural resources management. (USAID)
- **Co-founded and chaired the Zoo Conservation Outreach Group**, a consortium of 35 zoos and aquariums from the United States. The Outreach Group provides training and financial assistance to zoos and aquariums in South/Central America to enhance their conservation programs. (AAZPA)

### **Program Evaluation**

- **Designed and managed the California Student Assessment Project** a study funded by the California Department of Education to analyze the academic effects of environment-based education on student achievement.
- **Developed and oversaw evaluation, analysis and reporting of the educational effects of the California Integrated Waste Management Board's School DEEL Program**, resulting in the 457-page technical report that the CIWMB incorporated into their report the California Legislature.
- **Conducted evaluations of the implementation of the EIC Model™ demonstration network schools** in Massachusetts, Georgia, Texas, Minnesota, Washington and Iowa on behalf of the State Education and Environment Roundtable.
- **Planned, analyzed and reported on a three-year evaluation of Adopt-A-Watershed's CALFED-funded place-based education program.**
- **Planned and managed a two-year evaluation of First Hand Learning's NSF-funded Object Lessons** program.
- **Designed and conducted SEER's research program** into the educational effects of environment-based education on student achievement and behavior, resulting in the publication of the nationally recognized report *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*.
- **Conducted a national evaluation of the status of environmental education**, as reported in *Pieces of a Puzzle - An Overview of the Status of Environmental Education in the United States*. This work led to the establishment of the State Education and Environment Roundtable. (Pew Charitable Trusts)
- **Directed and participated in the evaluation of a 3-year U.S. government funded education and training program** in Ecuador, which resulted in program restructuring and further funding of \$500,000.
- **Reviewed and critiqued for funding purposes** more than 500 program grant proposals. (Charles Lindbergh Fund, World Wildlife Fund)

### **Long-range Planning**

- **Designed and wrote the implementation plan for the State of California's Education and the Environment Initiative** this plan described the strategies and methods that were implemented during the six-year process of creating and establishing a curriculum for the State of California, and involved cooperative implementation among six state agencies including the California Environment

Protection Agency, California Department of Education, State Board of Education, Natural Resources Agency, Governor's Secretary of Education, and California Integrated Waste Management Board.

- **Directed long-range, institutional planning efforts** for various international agencies (USAID), and non-profit environmental groups in the U.S. (World Wildlife Fund, Fossil Rim Foundation, Pride of Texas Conservation Fund, RARE, Inc.), Panama (Fundación PANAMA) and Honduras (Honduran Ecological Association).
- **Organized and provided orientation for long-range planning workshops** for non-profit organizations in U.S., Panama and Honduras.

### **Environmental Assessment**

- Designed and coordinated a **statewide assessment of the status of endangered species conservation activities** in Texas. Obtained active participation of 30 state and Federal agencies and universities.
- Directed **biological studies** of a 3 year, \$4.5 million study of the implications of copper-nickel mining in northern Minnesota. Edited 60 technical reports on biological impacts of this development.
- Designed and **directed a study of biological impacts from chemical pollutants** for Wisconsin Department of Justice. (Environmental Systems Associates)
- Co-authored **review of mining regulations** for Wisconsin Department of Natural Resources.
- Co-authored report to State Legislature on the cross-systems (socio-economic, physical-chemical and ecological) **implications of development alternatives**. (Minnesota Environmental Quality Board)
- Co-designed and supervised implementation of The Nature Conservancy's "State Natural Heritage Program," a **computer-based ecological inventory methodology** which has been adopted by all 50 states. (The Nature Conservancy)

### **Volunteer Coordination, Training and Community Involvement**

- **Enlisted and trained 30 volunteers** to conduct public education campaigns for endangered species in a series of public forums and conservation events throughout Texas. (Pride of Texas Conservation Fund)
- Conducted **volunteer planning/training workshops** for 70 docents at a 2900 acre public wildlife conservation facility. (Fossil Rim Foundation)
- **Organized and trained** 22 parent volunteers for a fund raising effort which raised over \$16,000 for an in-school computer facility. (Poway School District)

### **Writing and Editing of Technical Reports**

- Books and Educational Materials: 4 published
- Technical Reports: 25 authored, 40 as contributing editor
- Professional Articles: 16 in referred and popular journals

### **U.S. and International Experience**

- Geographically diverse professional experience in a national and international context, including working knowledge of: 10 states in the U.S.; 16 countries in Latin America and Caribbean; 7 countries in Europe; and, 4 countries in Africa and Asia.
- Extensive working relationships with numerous national and international development and environment agencies.

**Foreign Language** Spanish: technical working knowledge

## SELECTED PUBLICATIONS AND TECHNICAL REPORTS

- 2013 Education and the Environment; Creating Standards-Based Programs in Schools and Districts. Harvard Education Press. 240 p.
- 2013 Energy: It's Not All the Same to You (Supplemental Lesson) California Education and the Environment Initiative: Model Curriculum Plan. California Environmental Protection Agency. 32 p.
- 2010 K-12 Instructional Curriculum for California's Education and the Environment Initiative: Model Curriculum Plan. California Environmental Protection Agency. Approximately 22,000 p. in 85 units of a K-12 State Board of Education approved curriculum (with numerous authors and editors)
- 2010 Biological Diversity: The World's Riches - Teacher's Edition. (High school biology instructional unit for California's Education and the Environment Initiative) California Environmental Protection Agency. 108 p. (with G. Lieberman and L. Mann)
- 2005 Education and the Environment Initiative: Model Curriculum Plan. California Environmental Protection Agency and Integrated Waste Management Board. 154p. (with J. Rigby et al)
- 2005 A Report on the Accomplishments of School Districts that Participated in the School Diversion and Environmental Education Law. California Integrated Waste Management Board. 439p. (with G. Lieberman, J. Henn and L. Hoody)
- 2005 Education Plan for America's Ocean Challenge. America's Ocean Challenge. 47p. (with J. Rigby)
- 2005 Education and the Environment Initiative: Educator Needs Assessment. California Environmental Protection Agency and Integrated Waste Management Board. 25p. (with J. Rigby)
- 2005 California Student Assessment Project Phase II: The Effects of Environment-based Education on Student Achievement. State Education and Environment Roundtable. 32p. (with L. Hoody)
- 2005 Object Lessons: Digging Archaeology Program Evaluation. First Hand Learning. 23p. (with L. Hoody)
- 2004 Education and the Environment Initiative: Environmental Principles and Concepts. California Environmental Protection Agency and Integrated Waste Management Board. 154p. (with J. Rigby et al)
- 2004 Object Lessons: Examining Mammals Program Evaluation. First Hand Learning. 20p. (with L. Hoody)
- 2003 Planning Guide for Implementing an EIC Program in Your School. State Education and Environment Roundtable. 104p. (with L. Hoody, G. Lieberman and J. Henn)
- 2003 Implementing and Strengthening an EIC Program in Your School: A Self-evaluation Guide. State Education and Environment Roundtable. 21p. (with L. Hoody and G. Lieberman)
- 2000 California Student Assessment Project: The Effects of Environment-based Education on Student Achievement. State Education and Environment Roundtable. 21p. (with L. Hoody)
- 2000 Developing Leadership and Community Support for EIC in Your School: A Self-evaluation Guide. State Education and Environment Roundtable. 14p. (with L. Hoody)
- 2000 Putting the Environment Back into Education. North American Association for Environmental Education. Environmental Communicator. May/June.
- 1999 Planning Guide for Implementing an EIC Program in Your School. State Education and Environment Roundtable. 69p. (with L. Hoody and G. Lieberman)
- 1999 The Environment Scores High With Educators. Orion Afield. 3(2), 20-21. (with L. Hoody)
- 1998 Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning. State Education and Environment Roundtable. 112p. (with L. Hoody)
- 1998 Beyond Walls, Across Disciplines (video). Co-produced with John Stern. West Peak Media, 67 minutes.
- 1998 Closing the Achievement Gap: A Video Summary (video). Co-produced with John Stern. West Peak Media, 13 min.
- 1997 Improving Student Learning. *PAEE Journal*. 5: 3-4. (with L. Hoody)
- 1997 Making Education Real. State Education and Environment Roundtable. 29p. (with L. Hoody)
- 1994 Pieces of a Puzzle - An Overview of the Status of Environmental Education in the United States. Pew Charitable Trusts. 124p.
- 1994 Technology Utilization Plan for Twin Peaks Middle School. Poway Unified School District. 19p.
- 1993 A Blueprint for Action, Aquarium Programs in Marine Conservation. Phase Two Report. Science Wizards for Pew Charitable Trusts, Packard Foundation and Munson Foundation. 43p.
- 1993 Status of Aquarium Programs in Marine Conservation. Phase One Report. Science Wizards for Pew Charitable Trusts, Packard Foundation and Munson Foundation. 119p.
- 1991 Operation Wildlife. Teacher training guide. Pride of Texas Conservation Fund.

- 1990 The Status of Efforts to Conserve Texas Endangered and Threatened Species. Fossil Rim Foundation. (with M. Airth-Kindree) 91p.
- 1990 A Model Program for Encouraging the State-wide Conservation of Endangered and Threatened Species. AAZPA Annual Proceedings. 1990:162-168
- 1986 The World Conservation Strategy and the Role of International Agencies. Journal of the International Association of Zoo Educators. 15:12-16.
- 1986 RARE: Environmental Education Catalyst. In International Perspectives on Environmental Education: Issues and Actions. NAAEE. 1986-76-79
- 1986 The Role of Community Involvement in Wildlife Conservation. The Biosphere. 5:1-3.
- 1985 The World Conservation Strategy and the Role of International Agencies. AAZPA Proceedings.
- 1984 The Resource Management Education Program. In The Environment and Science and Technology Education. ICSU Press. 1984:189-194.
- 1983 A Resources Education Program for Latin America. In Current Issues in Environmental Education and Environmental Studies. VIII:85-88.
- 1983 The Development of Private Voluntary Organizations Dealing with Natural Resources and Environmental Management in Peru and a Strategy for Enhancement of Their Programs. U.S.A.I.D. (with B. Swift) 85p.
- 1983 Plan for the Development of a Private Sector Initiative in Natural Resource Programs in the Republic of Panama. U.S.A.I.D. 73p.
- 1983 Environmental Education Methods. (in Spanish) (with G. Lieberman et al). State Open Univ., Costa Rica. 655p.
- 1982 An Education Program for the Honduran Ecological Association. U.S.A.I.D.
- 1982 Evaluation of Program Grant to Fundación Natura in Ecuador. U.S.A.I.D. (with D.W. Wood).
- 1982 Resource Management Education for Primary Schools. (Teacher training manual in Spanish) Co-author and editor. RARE, Inc.
- 1979 Review of proposed State of Wisconsin Regulations, Mining Wastes. Wisconsin Dept. of Justice. (with R. Poppe)
- 1979 Considerations relevant to the regulation of wastes generated by non-ferrous sulfide ore mining in Wisconsin. Wisconsin Department of Natural Resources (with P. Kreisman et al) 245p.
- 1979 Executive Summary - The Minnesota Regional Copper-Nickel Study. Environmental Quality Board. (with R. Poppe et al.) 111p.
- 1979 Public Health Assessment - The Minnesota Regional Copper-Nickel Study. Environmental Quality Board. (with P. Ashbrook) 90p.
- 1979 Aquatic Biology Resources - The Minnesota Regional Copper-Nickel Study. Environmental Quality Board. (with M. Johnson) 110p.
- 1979 Terrestrial Ecosystem Resources - The Minnesota Copper-Nickel Study. Environmental Quality Board. (with N. Sather et al) 185p.
- 1979 America's "Undeserted" Deserts. The Nature Conservancy News. 29:4-8.
- 1978 The preservation of ecological diversity. In Environmental Problems: Principles, Readings and Comments, eds. W.H. Mason and G.W. Folkerts. W.C. Brown and Company.
- 1977 Stewardship: The Key to Prairie Preservation. The Nature Conservancy News. 27:22-25.
- 1977 The Regional Copper-Nickel Study: Biological Sciences Program. The Naturalist. 34:32-37.
- 1975 A field survey system for ecological resources. The Nature Conservancy. 35p.
- 1975 Preservation of ecological diversity. The Naturalist. 26:24-31.
- 1975 A preliminary study of seed predation in desert and montane habitats. (with J. Brown et al.) Ecology 56:987-992.
- 1974 Species diversity and abundance of desert rodents in several southwestern deserts. Ph.D. thesis. Princeton University.
- 1973 Resource utilization and coexistence of seed-eating desert rodents in dune habitats. Ecology: 54: 788-797 (with J. Brown)