

Reference List

Selected References for Definitional Features

The following are sources that may be consulted regarding definitional features (key characteristics) of Environmental Education, Environmental Literacy, and the EE Approaches included in the accompanying charts.

I. Definitional Features of Environmental Education

Stapp, W., et al. (1969). The concept of environmental education. *The Journal of Environmental Education*, 1 (1), 30-31.

Unesco. (1977). *Trends in Environmental Education*. Paris, France: Unesco.

Unesco. (1978). *Final Report: Intergovernmental Conference on Environmental Education*. Paris, France: Unesco.

Hungerford, H., Peyton, R., & Wilke, R. (1980). Goals for curriculum development in environmental education. *The Journal of Environmental Education*, 11 (3), 42-47)

Hart, E. (1981). Identification of key characteristics of environmental education. *The Journal of Environmental Education*, 13 (1), 12-16.

Disinger, J. (1983). Environmental education's definitional problem. (ERIC Information Bulletin #2). Columbus, OH: ERIC Science, Mathematics, and Environmental Education Clearinghouse.

National Environmental Education Advisory Council. (2005). *Setting the standard, Measuring results, and Celebrating successes. A report to Congress on the status of environmental education in the United States* (EPA 240-R-05-001). Washington, DC: U.S. Environmental Protection Agency. Available at <http://www.epa.gov/enviroed/pdf/reporttocongress2005.pdf>.

II. Definitional Features of Environmental Literacy

Harvey, G. (1977). A conceptualization of environmental education. In J. Aldrich, A. Blackburn, and G. Abel (Eds.), *The Report of the North American Regional Seminar on Environmental Education* (pp. 66-72). Columbus, OH: ERIC/SMEAC.

Hungerford, H., & Volk, T. (1990). Changing learner behavior through environmental education. *The Journal of Environmental Education*, 21 (3), 8-22.

Roth, C. (1992). *Environmental Literacy: Its Roots, Evolution, and Directions in the 1990s*. Columbus, OH: ERIC/SMEAC.

Disinger, J., & Roth, C. (1992). Environmental literacy. (ERIC/CMSEE Digest 1992-11-00.) Columbus, OH: ERIC Clearinghouse for Science, Mathematics, and Environmental Education. (ED 351201)

Simmons, D. (1995). Working Paper #2: Developing a framework for National Environmental Education Standards. In *Papers on the Development of Environmental Education Standards* (pp. 10-58). Troy, OH: NAAEE.

Wilke, R. (1995). Literacy model development and framework. In R. Wilke (Ed.), *Environmental Education Literacy/Needs Assessment Project: Assessing Environmental Literacy of Students and Environmental Education Needs of Teachers; Final Report for 1993-1995* (pp. 5-6). (Report to NCEET/University of Michigan under U.S. EPA Grant #NT901935-01-2). Stevens Point, WI: University of Wisconsin - Stevens Point.

III. Definitional Features and State/Local Examples of EE Approaches

A. Field Natural History and Ecology

1. Schoolyard Garden/Habitat Programs (includes wetlands and gardens)

National Wildlife Federation. Create a schoolyard habitat

<<http://www.nwf.org/schoolyard/>>

U.S. Fish and Wildlife Service. Schoolyard habitat: Stewardship through action:

<<http://www.fws.gov/chesapeakebay/schoolyd.htm>> and

<<http://www.fws.gov/chesapeakebay/pdf/habitatguide.pdf>>

The Maryland Association for Environmental and Outdoor Education. Schoolyard habitats.

12/18/09: <<http://www.maeoe.org/habitat/>>

Environmental Concern, Inc. Schoolyard habitats:

<http://www.wetland.org/education_schoolyard_wetlands.htm>

2. Resident Outdoor School and School Camping Programs

<<http://www.ericdigests.org/pre-923/outdoor.htm>>

<<http://www.sdcoe.k12.ca.us/outdoored/cosa/certif.asp>>

<http://www.adams12.org/en/outdoor_education_faq>

<<http://www.mohicanoutdoorschool.org/>>

<<http://www.montgomeryschoolsmd.org/curriculum/outdoored/resprog.shtm>>

3. Agency and Industry Partnership Field Study Programs

<<http://www.nature.nps.gov/studentteachers/linkstolearning/>>

Heins, E., Piechura-Couture, K., Roberts, D., & Roberts, J. (2003). PARKnerships are for all.

Science and Children, November/December, 25-29. Available at:

<<http://www.nsta.org/store/search.aspx?author=Elizabeth+D.+Heins>>

Ft. White Middle School PARKnership Program:

<<http://www.fldoe.org/successstories/2007/04-10-2.asp>>

<http://www.fsu.edu/~flserve/projects/0910%20Project%20lists/09-10%20Awardee%20Descriptions_Renewals.pdf> (see second page of project descriptions)

5a. GLOBE

<<http://www.globe.gov/>>

5b. Species Monitoring Programs (for K-12)

<http://www.uwsp.edu/cnr/leaf/Schoolforests/sf_environmental_monitoring.aspx>

Mappin, M. (1998). Choosing an environmental monitoring program. *The Green Teacher*, 55, 12-15.

Tudor, M., & Dvornich, K. (2001). The *NatureMapping* Program: Resource agency environmental education reform. *The Journal of Environmental Education*, 32(2), 8-14.

Kauckeck, L. (2004). A survey of biological monitoring program in the United States that involve K-12 students as monitors. Unpublished Master's research report, Science and Mathematics Education Department, Florida Institute of Technology, Melbourne, FL.

Kauckeck, L., & Marcinkowski, T. (in review). A survey of biological monitoring programs in the United States that involve K-12 students as monitors. *The Green Teacher*.

5c. Watershed & Stream Studies

<<http://www.epa.gov/adopt/>>

<<http://www.adopt-a-watershed.org/>>

<http://creec.edgateway.net/cs/creecp/view/creec_org/115>

<<http://www.watershedsresearch.org/HinkleCreek/OutreachandEducation.html>>

<<http://notes.utk.edu/bio/unistudy.nsf/9eab68a4f27cc7dd85256e3600733574/9d0504b305b8b>>

<http://sns.ucdavis.edu/index.php/adopt_a_watershed>

5d. Long-Term Ecological Research (LTER)

<<http://schoolyard.lternet.edu/LTEREduHandbook.pdf>>

<<http://schoolyard.lternet.edu/>>

B. Environmental Science with Field Study

1. Environmental Impact Monitoring/Citizen Science

<http://en.wikipedia.org/wiki/Citizen_science>

<<http://www.birds.cornell.edu/citscitoolkit>>

<<http://www.citizen-science.org/rdPage.aspx>>

<http://www.nyserda.org/Programs/Environment/EMEP/teachers_&_students.asp>

<<http://www.new-albany.k12.oh.us/district/preserve/envsci.php>>

2. Pollution Monitoring

<http://www.umt.edu/cehs/k12_outreach.html>

2a. Studies of Litter

<<http://schools-wikipedia.org/wp/l/Litter.htm>>

<http://www.kab.org/site/PageServer?pagename=pressreleases_12_3_09>

<<http://www.springer.com/life+sciences/ecology/book/978-1-4020-6568-2>>

<http://www.k6edu.com/4thgrade/social_studies/recycling-litter.html>

2b. Water Quality Monitoring

<<http://www.aecos.com/CPIE/watRqual.html>>
<<http://www.earthforce.org/section/programs/green>>
<http://www.birds.cornell.edu/citscitolkit/tag_cloud_explorer_results?subjects:list=water+quality>
<http://www.chemistry.emory.edu/faculty/ram/waterquality_project.htm>
<<http://www.juliantrubin.com/encyclopedia/environment/waterquality.html>>

2c. Air Quality/Pollution Monitoring

<<http://www.epa.gov/teachers/air.htm>>
<http://www.pomperaug.com/research/air_pollution.htm>
<http://www.nyserda.org/Programs/Environment/EMEP/teachers_&_students.asp>
<<http://www.1upscience.com/links/environment-air-quality.html>>

3. Natural Resource Monitoring/Sustainability

<http://www.uspartnership.org/main/show_passage/48>
<http://www.nal.usda.gov/afsic/AFSIC_pubs/k-12.htm>

3a. Energy Consumption/Efficiency

<http://www.energystar.gov/index.cfm?c=k12_schools.bus_schoolsk12>
<<http://www.nesea.org/k-12/>>
<<http://www.epa.gov/greenpower/pubs/calculator.htm>>
<<http://ase.org/section/audience/educators>>
<<http://www.edfacilities.org/rl/energy.cfm>>

3b. Water Consumption/Conservation

<<http://www.dnr.state.wi.us/org/caer/ce/greenSchools/resourcesWater.htm>>
<<http://your.kingcounty.gov/solidwaste/greenschools/water-resources.asp>>
<<http://www.edfacilities.org/rl/water.cfm>>
<<http://www.waterconservationschool.com/watercalculator.htm>>
<<http://www.waterfootprint.org/?page=files/home>>

C. Community Issue Investigation

<<http://www.cisde.org>>

Hungerford, H., Volk, T., Ramsey, J., Litherland, R., & Peyton, R. (1990, 1992, 1996, 2003).

Investigating and Evaluating Environmental Issues and Actions, Teacher Edition.
Champaign, IL: Stipes Publishing, LLC.

Ramsey, J., & Hungerford, H. (1989a). So ... You want to teach issues? *Contemporary Education*, 60(3), 137-142.

Hungerford, H., & Volk, T. (1990). Changing learner behavior through environmental education. *The Journal of Environmental Education*, 21(3), 8-21.

Bardwell, L., Monroe, M., & Tudor, M. (1994). *Environmental problem solving: Theory, practice and possibilities in Environmental Education*. Troy, OH: NAAEE.

Ramsey, J. (1998). Comparing four environmental problem solving models: Additional comments. In H.R. Hungerford, W. Bluhm, T.L. Volk, & J.M. Ramsey (Eds.), *Essential Readings in Environmental Education* (pp. 145-155). Champaign, IL: Stipes Pub. LLC.

D.1. Environmental Action Research

<http://en.wikipedia.org/wiki/Action_research>

<<http://www.infed.org/research/b-actres.htm>>

Stapp, B., et al. (1988). Chapter 2: The Action Research Community Problem-Solving (AR:CPS) Process. In *Education in Action: Community Problem-Solving Program for Schools* (pp. 37-53). Dexter, MI: Thomson-Shore, Inc.

Bardwell, L., Monroe, M., & Tudor, M. (1994). *Environmental problem solving: Theory, practice and possibilities in Environmental Education*. Troy, OH: NAAEE.

Rao, P., Arcury, T., & Quandt, S. (2004). Student participation in community-based participatory research improve migrant and seasonal farmworker environmental health: Issues for success. *The Journal of Environmental Education*, 35(2), 3-15.

D.2. Service-Learning and Civic Engagement (including Internships and Apprenticeships)

<<http://www.servicelearning.org>>

<<http://www.nylc.org>>

<<http://www.nationalservice.gov>>

<http://www.michigan.gov/documents/mcsc/8542_K-12_SL_Toolkit_UPDATED_286937_7.pdf>

<<http://www.iseek.org/education/apprenticeships.html>>

<<http://www.stccmop.org/education/K12>>

National Youth Leadership Council. (2008). *K-12 Service-Learning Standards for Quality Practice*. St. Paul, MN: NYLC.

Billig, S., & Weah, W. (2008). K-12 service-learning standards for quality practice. In National Youth Leadership Council (Ed.), *Growing to Greatness*. (pp. 8-18). St. Paul, MN: NYLC. Available at

<http://www.nylc.org/pages-newsevents-news-K_12_Service_Learning_Standards_for_Quality_Practice?oid=6091>

E.1. Environment as an Integrating Context (EIC)

Lieberman, G., & Hoody, L. (1998). *Closing the Achievement Gap: Using the Environment as an Integrating Context for Learning*. San Diego, CA: State Education and Environment Roundtable.

<<http://www.seer.org/index.html>>

<http://www.seek.state.mn.us/classrm_d.cfm>

<<http://www.pa3e.ws/resources/governors-institute-workbook/17/41-environment-as-the-integrated-context-for-learning.html>>

E.2. Place-Based Education

<http://en.wikipedia.org/wiki/Place-based_education>

<http://promiseofplace.org/what_is_pbe/principles_of_place_based_education>

<<http://www.ericdigests.org/2001-3/place.htm>>

<http://en.wikibooks.org/wiki/Place-Based_Education>

Sobol, D. (2004). Place-based education: Connecting classrooms & communities. *Nature Literacy Series Number 4*. Great Barrington, MA: The Orion Society.

F.1. Project-Based Learning

<http://edutechwiki.unige.ch/en/Project-based_learning>
<<http://pbl-online.org/default.htm>>
<http://www.designshare.com/Research/Wolff/Project_Learning.htm>
<<http://www.auburnschools.org/shornig/pbl.htm>>
<http://college.cengage.com/education/resources/res_project/students/c2007/background.html>
<<http://www.21stcenturyschools.com/Project-Based-Learning.htm>>

F.2. Problem-Based Learning

<http://psychology.wikia.com/wiki/Problem-based_learning>
<http://en.wikipedia.org/wiki/Problem-based_learning>
<<http://www.natefacs.org/JFCSE/v20no1/v20no1Ward.pdf>>
<<http://www.educationatlas.com/problem-based-learning.html>>
< <http://www.questia.com/library/psychology/educational-psychology/learning-styles-and-theories/problem-based-learning.jsp>> (see list of full-text books and articles)
<http://itmc.cesa5.k12.wi.us/STAIRS_Site/pbl.html>