Our children are naturally interested in the environment. They are concerned about the condition of the environment and whether it will improve or deteriorate. Thus, teaching about the environment is an expanding part of many school curricula. Teachers are integrating the environment into many subjects and using it as a tool to teach language, science, reading, and even math.

Parents expect that this education about the environment and environmental problems be taught based on high standards. They expect that environmental education (EE) will involve the basics of nature studies (plant growth, interdependence, etc.) and that when controversial environmental issues are taught (global warming, acid rain, rain forest deforestation, etc.), these scientific controversies will be presented in a balanced way.

Fortunately, parents, teachers, and school officials have help in determining what constitutes quality environmental education. The North American Association for Environmental Education (NAAEE), the nation’s largest association of professional environmental educators, provides guidelines to evaluate materials that are used in classrooms. These guidelines for fairness and accuracy read, in part:

- Environmental education materials should be fair and accurate in describing environmental problems, issues, and conditions and in reflecting the diversity of perspectives on them. [Emphasis in original]

- Sources of factual information are clearly referenced.

- Factual information is presented in language appropriate for education rather than for propagandizing.

- Information comes from primary sources — which provide context, documentation, and explanation — rather than from reviews or newspaper articles that simply provide bits and pieces of arguments or evidence.

- Where there are differences of opinion or competing scientific explanations, the range of perspectives should be presented in a balanced way.

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• Materials should encourage learners to explore different perspectives and form their own opinions.

• Materials encourage an atmosphere of respect for different opinions and an openness to new ideas.

• Activities encourage learners to become discerning readers and observers of media coverage of environmental matters.1

Most of us would agree that when students are taught about the environment they should be taught using materials that meet or exceed these high standards. Unfortunately, my studies of textbooks used in Wisconsin’s 6th through 10th grade classrooms and those used at the university level to teach prospective teachers show that the vast majority fail to live up to these guidelines.

For example, my review of 6th through 10th grade textbooks used in Wisconsin shows that:

• While 22 of 23 textbooks explain that world population growth is nearing the Earth’s carrying capacity, 20 of 23 fail to mention that the world population growth rate peaked in the late 1960s and has been decreasing since.2

• While 24 of 24 texts explain that carbon dioxide is causing global warming, 19 of 24 texts fail to mention the role of water vapor in the greenhouse effect and 23 of 24 texts fail to mention that most of the warming that has occurred over the last 100 years took place before 1938.3

• While 39 of 39 texts explain that acid rain is harmful to lakes and streams and kills fish and trees, 38 of 39 texts fail to mention that the largest study of acid rain ever conducted found that there is little damage to trees and minimal damage to streams and lakes.4

In addition, materials used to instruct future teachers, which were assigned in twelve required university level environmental education courses, were also found to be biased. Only two of the twelve courses conform to the NAAEE guidelines for fairness and accuracy. Seven of the courses clearly fail to provide future teachers with balanced treatment of important environmental issues. My evaluation was inconclusive for the other three courses.5 How can Wisconsin citizens and parents expect students to receive a balanced environmental education if their teachers are receiving biased education at the university level?

Defensive Response to Criticism

What was the response of the environmental education community in Wisconsin to the findings of these studies? Did environmental educators use their networks to inform teachers about the bias in the texts and offer materials to counteract the bias? Did those legally responsible for teacher education notify university professors that the environmental science textbooks they were using contained biased information? Did they recommend that the universities provide students with additional information to expose future teachers to more complete information surrounding scientific controversies?

The environmental education community in Wisconsin is certainly capable of doing these things. Wisconsin has, perhaps, the nation’s most highly developed set of legal and administrative structures to support environmental education.

The EE community did none of these things however. Instead, it circled the wagons and engaged in a reactionary defense of the status quo by attacking the messenger.6 The EE community also decided to use public funds not to find and correct problem areas, but to conduct a sophisticated public relations campaign called “EE Works in Wisconsin.” This campaign funded the training of EE leaders in media skills such as how to create and use media sound bites effectively.7

The Tip of the Iceberg

Knowingly using biased materials in the classroom is education malpractice of the first order. Responsible educators address and correct problems, not ignore, excuse or cover up problems with slick PR campaigns. Sadly, this
is only the tip of the iceberg. The administrative structures established to support and promote environmental education in Wisconsin are designed to train children to become political activists. In other words, Wisconsin students are taught biased information about environmental issues which leads them to predetermined conclusions. These children are then taught sophisticated political action skills (how to lobby, raise money, write letters, hold press conferences, etc.).

This educational sequence leads students to engage in political actions predetermined by the content of the biased materials. This is nothing new. Patricia Poore, editor of Garbage magazine, confirms this progression in her 1993 lead article “Enviro Education: Is it Science, Civics--or Propaganda?” She notes that the EE curriculum she reviewed ...contains oversimplification and myth, has little historical perspective, is politically oriented, and is strongly weighted toward a traditional environmentalist viewpoint, i.e. emphasizing limited growth, distrust of technology, misinformation concerning waste management and gloomy (if not doomsday) scenarios.8

Poore also comments “I was struck by the repetitive topics, the emphasis on social problems rather than science background, and the call to activism.”9 [emphasis added]

Mike Weilbacher, Executive Director of the Lower Merion Conservancy, a nature center in Pennsylvania, also notes this trend toward political activism:

[Adult] activists ask kids to write to Congress. Pick up litter. Plant a tree. Recycle cans...Eight-year-olds should not be asked to become warriors or worriers....It is adults who must be warriors, not children.10

These trends are not accidental. The environmental education community, since its inception in 1970, has made political skill training and political activism of primary importance by including both in all of their definitions of environmental education and in all goal statements. In fact, this primary emphasis on political activism is the distinguishing characteristic that separates EE from what was previously taught under the title of “nature studies” and “conservation education.” To distinguish between nature and conservation education, which is solidly grounded in science, and the new environmental education, which aims at politicizing children, I will use the term “politicized EE model” to refer to the latter concept.

To implement their EE definitions and goals, the EE community has worked hard in states such as Wisconsin to ensure that the legal and administrative structures train students in political activism. The following sections describe the legal and administrative structures that implement and support the politicizing of children on environmental issues in Wisconsin.

Wisconsin students are taught biased information about environmental issues which leads them to predetermined conclusions.

School District Environmental Education Plans: All Wisconsin school districts are required by statute to develop a “sequential curriculum plan” for environmental education.11 To assist school districts in meeting this requirement, the Department of Public Instruction published A Guide to Curriculum Planning in Environmental Education written by and with the assistance of the faculty at UW-Stevens Point. While its use is not mandatory, the Guide provides everything school district officials need to develop their plans. Significant is the Guide’s goal statement and the five subgoals. The second subgoal states that children are to develop knowledge about the environment, but as we have seen, the textbooks and teacher training materials used in
Wisconsin provide students and teachers alike with a very biased presentation of this “knowledge.” Relevant for the discussion here are subgoals four, “citizen action skills,” and five, “citizen action experience.”

The *Guide* argues that students at all grade levels should be taught citizen action skills. Examples include requiring upper elementary school students to write “letters about issues to elected officials.” At the middle and high school level, students are to “plan individual or group action.” This includes “consumerism, political action, legal action...” The *Guide* notes that areas “will be discussed in greater detail in the following discussion of the citizen action experiences subgoal.”

The *Guide* goes on to emphasize that it is not enough just to learn about political action, students must actually “experience” political action. Suggestions for the curriculum plan required by every district include letter writing, boycotts of products, political pressure on elected officials, and filing lawsuits and injunctions.

The attitude of the authors of the *Guide* is revealed by a specific example they provide to illustrate the boycott tactic. The *Guide* notes that a direct boycott means:

...applying economic pressure by refusing to buy products with a negative environmental impact in order to eliminate their production (for example, refusing to buy nonrecyclable beverage containers).

Note that the *Guide* is not suggesting that students be taught how to think about this issue, but is teaching them what to think. A curriculum that emphasized scientific and economic knowledge about the environment, instead of political action, would ask students to investigate the pros and cons of recyclable and nonrecyclable beverage containers including the positive and negative environmental trade-offs from recyclable beverage containers. Instead, the authors of the *Guide* provide students with the “environmentally correct” dogma and expect them to take action based on that dogma.

**State Mandated Academic Testing and Standards:** Wisconsin law requires the superintendent of public instruction to develop a testing program for “reading, mathematics, writing, science, social science and other areas of instruction commonly offered by public schools.” In addition, the superintendent and the department will adopt “examinations designed to measure pupil attainment of knowledge and concepts in the 4th, 8th and 10th grades,” and a high school graduation examination.

School districts are required to adopt academic standards in mathematics, science, reading and writing, geography, and history.

In many areas, the traditional science standards are consistent with good science education. For example, in the State’s Model Academic Standards for science, 8th grade standard D.8.8 relates to physical science, and requires students to “describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations.”

On the other hand, included in these same science standards are items that are more politics than science. For example, Model Academic performance standard H.8.2 requires 8th grade students to “participate in a consensus-building discussion and arrive at a group decision.” Most scientists would argue that science is not based on consensus-building and group decisions, but rather on the weight of the scientific evidence and the strength of the scientific methods used.

Twelfth grade students are required to “advocate a solution or a combination of solutions to a problem in science and technology.” It is implied that science teachers, who are not qualified by their training, will teach political advocacy methods such as writing letters to politicians and editors, holding a press conference, and so forth.

**Model Environmental Education Standards:** The model environmental education standards are even more explicit in recom-
mending that teachers teach political action skills and, presumably, urge students to use those skills. The Model EE standards are divided into five areas with “Decision and Action Skills” as the fourth area. Here, young students at the 4th grade level are required to master political action skills, such as writing letters to “local, state and national officials” and explaining how they “can influence an environmental issue.” Twelfth grade students, as one might expect, are required to demonstrate more sophisticated political actions. They must “develop a plan to maintain or improve some part of the local or regional environment and enlist support for the implementation of that plan.”

To assist school districts and teachers in implementing these standards, the terms are defined in an attached glossary. It is interesting to note that nearly half of the terms are taken from a leading environmental science textbook by G. Tyler Miller, Jr., Environmental Science: Working with the Earth. This textbook, which is also used by UW-Stevens Point in its required course for education majors, has been criticized in three independent reviews. One reviewer called it a “model for education-with-indoctrination.”

Teacher Training and Teacher Resources: All prospective teachers applying for their initial teaching certificate are required by the Wisconsin Administrative Code to complete a course in environmental education. As my 1997 report showed, most of these courses not only misinform these future teachers, but they politicize them on environmental issues.

The Wisconsin Center for Environmental Education (WCEE), located in the College of Natural Resources at UW-Stevens Point, was established by state law to assist in the development of quality EE programs around the state. This center has the legislative mandate to “develop, offer and evaluate environmental courses for teachers.”

Unfortunately, the Center has not been effective in influencing the delivery of quality EE to teachers, even within the faculty at Stevens Point. Stevens Point faculty have shown their commitment to politicizing students in required courses for education majors. As my study of twelve required courses at eight University of Wisconsin campuses showed, Stevens Point uses the G. Tyler Miller environmental science textbook, which has been criticized by three independent studies.

To summarize these findings, the Miller textbook was criticized by the Independent Commission on Environmental Education (ICEE) for using Earth First! founder David Foreman’s definition of “earth-wise worldview.” Earth First! is considered by many to be an environmental terrorist organization because it advocates the “spiking” of trees. This action resulted in at least one death of a logger in California. In addition, the Independent Commission notes that Miller “cites published literature selectively and without proper references in order to justify his personal recommendations.”

The Textbook Letter, written by scientists and journalists, noted that,

The [Miller] book is so insistent in promoting its worldview that it could serve as a model for education-with-indoctrination.

Finally, my review provides detailed and specific documentation of the textbook’s biased and misleading coverage of world pop-
ulation, acid rain, and global warming. Students reading this text are given only the scientific and economic information that leads them to the policy preferences of the author. Any environmental education program that includes political action will be activating students to take that action in predetermined ways. By using this book without supplemental information to counteract the bias, the faculty members at Stevens Point are demonstrating their own biases and disregarding the NAAEE guidelines, which require fair and accurate presentation of all sides of environmental issues.

The WCEE at UW-Stevens Point also assists teachers by establishing a legislatively mandated curriculum resource center. A review of the publications recommended by this center is quite instructive. Here, one finds recommendations for teachers to use political "how-to" manuals such as *The Kid's Guide to Social Action* by Barbara Lewis, *Training Student Organizers Curriculum* published by the Council on the Environment, *The Global Ecology Handbook: What you Can Do about the Environmental Crisis* by the Global Tomorrow Coalition, and the *Student Environmental Action Guide* by the Student Environmental Action Coalition. These action manuals are based on the premise that the Earth is in grave danger and that students must take action to save it. Using this premise as a motivator, kids are taught sophisticated political action skills such as lobbying, fund raising, holding press conferences, writing letters to politicians, and picketing and protesting.

Mike Weilbacher notes that,

It must never be our (environmental educators) goal to frighten kids into taking predetermined actions. Yet many environmental education programs attempt to take the express route from awareness to action promoting teacher-led litter drives or dictated letters to the President. Rare are the occasions when students actually decide, plan and implement the action step themselves.

In addition, this list of teacher resources contains publications from environmental advocacy organizations such as Zero Population Growth, the Global Tomorrow Coalition, and the Worldwatch Institute. The primary goal of these advocacy organizations is to pressure for a "cause," not to objectively educate children. Zero Population Growth (ZPG) is notorious for its curriculum materials — some of which are designed for very young children — which frighten, not educate, children about world population issues. ZPG materials "educate" kids in the neo-Malthusian doomsday approach, and do not teach children other scientific perspectives.

Because advocacy organizations have so abused their educational responsibilities, Mike Weilbacher concludes,

Activists simply don’t make good educators, no matter what the cause, for the agenda of an activist is to promulgate propaganda. Period! Many activists see children as tools, or weapons in the environmental war to reach adult decision-makers. Want to hear something simple? That is obscene!

**WEEB Grant Program:** The Wisconsin legislature established the Wisconsin Environmental Education Board (WEEB) as the vehicle to promote quality environmental education based on high standards. The WEEB has several responsibilities, but its principal objective is to award grant moneys for quality environmental programs. Nowhere in the legislative language creating the WEEB does the legislature require the WEEB to issue grants for programs that teach political action skills or politicize children, but the Administrative Code does. Wisconsin Administrative Code requires that the WEEB review applications and award grant moneys based on several criteria, including funding EE programs that teach “skills needed to identify, investigate and take action toward the resolution of environmental issues.”

WEEB has institutionalized this regulation by establishing a definition of environmental education, not defined in statute, that states that EE is a “lifelong learning process that leads to...[a] commitment to engage in responsible individual and cooperation actions.”
This regulatory mandate is further specified in the WEEB grant application instruction manual for 1999-2000. Grant projects must show that they achieve one or more of five goals: “awareness, knowledge, attitudes and environmental ethic, citizen action skills and citizen action experiences.”

Citizen action skills and experiences mean that funded EE programs teach students to “develop skills needed to identify, investigate, and take action toward resolution of environmental issues” and “gain experience in working individually and collectively toward the resolution of environmental issues.”

The history of the Board is instructive. The Board was originally located in the Department of Public Instruction in Madison. In 1997, the Board moved to the UW-Stevens Point, where it is co-located with the WCEE. Faculty from Stevens Point have served on the Board in the past and continue to do so now. Since the move, the WCEE, the college of Natural Resources, and other entities at Stevens Point have more than doubled the dollar amount of grants received from the WEEB.

Administrative Control in a Decentralized System: All Roads Lead to Stevens Point and That’s a Shame

Wisconsin citizens pride themselves on local control of education. Therefore, there are few state level mandates requiring environmental education. The legislature requires by statute that all school districts develop a “written sequential curriculum plan” for environmental education. The substance of these plans is not specified in the state law. The legislature certainly does not require the politicization of children on environmental issues. Instead, the politicization of children in Wisconsin is largely a product of administrative action. Much of that administrative action and influence runs through the College of Natural Resources at UW-Stevens Point.

To summarize:

- The WCEE is located at Stevens Point with the primary responsibility for EE in the state. This Center also houses the EE curriculum resources center, which directs teachers to materials from environmental advocacy organizations and to how-to political action manuals.
- The WEEB moved from Madison to Stevens Point in 1997. This allowed for increased influence in implementing the politicized EE model through the WEEB grant programs in the state.
- Stevens Point faculty members assisted in the writing of the curriculum planning guide that provides politicized EE as the model to be used by the districts in the design of their mandatory EE curriculum plans.
- Stevens Point faculty members were on the committee that wrote the model EE standards which adopted the politicized model.
- The 1997 study Environmental Education in Wisconsin: Are We Walking the Talk? was conducted by the WCEE at Stevens Point. This study, which some view as a political battering ram to pressure for more EE money and mandates, demonstrates the complete lack of concern for fairness and accuracy in environmental education and the emphasis on political action by students.
- Finally, when criticism of the political EE model surfaced in the mid-1990s, the WCEE at Stevens Point was pivotal in...
organizing a statewide public relations campaign called “EE Works for Wisconsin.” This PR campaign, using private and taxpayer funds, held conferences where EE leaders were trained to create sound bites to, “respond to media questions,” and to “pitch our stories to a reporter in one minute, thirty seconds....”

Conclusion

The Wisconsin legislature has correctly recognized the need for our students to learn about the environment. Much of that education currently meets the high standards for scientific fairness and accuracy. When students engage in outdoor learning about nature (plant and forest growth, water and carbon cycles, photosynthesis, etc.), they are given not only the scientific background they need to understand the environment, but they gain an appreciation for the wonder and beauty of nature.

Unfortunately, this legislative desire has been captured by an implementation process that wants to use the educational process not just to educate children about the environment, but to train them to become political activists. As my previous reports have shown, abuses in environmental education do not occur when children are taught basic nature studies that are solidly grounded in science. The educational abuses that I have documented occur when educators use biased materials on environmental issues and politicize students by urging them to take political action.

The solution to these abuses is simple. The state legislature could clarify its intent by clearly defining environmental education in statutes. A starting point would be to consider a definition such as:

Environmental education means educational processes, programs, and activities that are specifically designed to enhance student acquisition of scientific and economic knowledge, principles, concepts and facts as it relates to environmental topics and issues and which are taught in an unbiased, fair, and balanced manner.

If adopted, a definition such as this one would clarify for all in the state what environmental education is and is not. Parents, teachers, and students could carry on with the work of education and leave behind the controversy created by activists attempting to politicize students on environmental issues.

Notes

3. Ibid., p. 21.
4. Ibid., p. 7.
9. Ibid., p. 28.
11. See Wisconsin Statute 121.02(1)(K) and Wis. Administrative Code PI 8.01(2)(k).
13. Ibid., p. 43.
14. Ibid., p. 44.
16. Ibid., p. 47.
17. Wisconsin Statute 115.28.(10).
18. Wisconsin Statutes 118.30 (1)(a) and (b).
19. Wisconsin Statute 118.30 (1g) (a).
23. EE standards, p. 10.
24. EE standards, p. 11.
1993 p. 6. Also see Michael Sanera, Teaching Teachers., pp. 13-16.
27. Wisconsin Administrative Code P.I. 3.05(4).
29. Wisconsin Statute 36.25(29m).
32. Michael Sanera, Teaching Teachers, pages 13-16.
33. WCEE, Annotated Bibliography of Environmental Education Resources, (Stevens Point: Wisconsin Center for Environmental Education).
http://www.uwsp.edu/acad/wcee/resource.htm
35. WCEE, Annotated Bibliography.
37. Wisconsin Administrative Code EEB 2.04(3)(a)2.d.
40. Ibid., p. 3.
42. Environmental Education in Wisconsin: Are We Walking the Talk? (Stevens Point: Wisconsin Center for Environmental Education, 1997).
43. Piraino, “EE Works for Wisconsin!”