Environmental Education in Wisconsin

Are we walking the talk?

A Profile of Environmental Education in Wisconsin K-12 Schools Based on Statewide Surveys and Assessments of Students, Teachers, Curriculum Coordinators, and Principals

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About the Wisconsin Environmental Education Board

A 1990 legislative initiative established the Wisconsin Environmental Education Board (WEEB). Its mission is to "Provide leadership in the development of learning opportunities that empower Wisconsin citizens with the knowledge and skills needed to make wise environmental decisions and take responsible actions in their personal lives, work places, and communities." The WEEB administers an annual small grants program of $200,000 which is distributed based on the merits of proposals submitted under specific guidelines. For information on the WEEB or the grants program contact: Wisconsin Environmental Education Board, P.O. Box 7841, Madison, WI 53707-7841, or call 608-266-3155.

Present members of the WEEB and the institutions they represent are as follows:

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*Harold Spencer passed away on Nov. 27, 1996. He was a longtime board member of the Wisconsin Wildlife Federation as well as being active on the WEEB. His wife, Marge, sent the following message as this report was being prepared. "On behalf of my husband Harold Spencer, thank you for recognizing his contributions to this educational project. Harold understood the enormous importance of environmental education in our schools. Not only does it provide good enhancement to any science courses, but instills in our youth that there is a responsibility to protect and preserve our environment and keep it viable in the future." Harold can be remembered as an outstanding leader in protecting Wisconsin's environment and the quality of life for its citizens. We will miss you Harold!

About the Wisconsin Center for Environmental Education

The Wisconsin Center for Environmental Education was established by a 1990 legislative initiative. It was placed in the University of Wisconsin System, College of Natural Resources at UW-Stevens Point. The mission of the WCEE is to "Promote, develop, disseminate, implement and evaluate environmental education programs for K-12 teachers and students in Wisconsin."

Core staff of the WCEE are as follows:

Randy Champeau, Ph.D., Director
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The WCEE houses one of the largest EE curriculum materials collections in the nation. It offers university credited in-service courses and an M.S. program in EE leadership for teachers. The WCEE staff consults with schools on program development and evaluation. If you would like to visit or contact the WCEE, it is located at the University of Wisconsin-Stevens Point campus.

Preface: About the Title "Are We Walking the Talk?"

"The Talk" in the rooms and halls of K-12 education in Wisconsin overwhelmingly supports the need to initiate, develop, and improve environmental education (EE) in our schools. This perspective is qualified and quantified by the results of the statewide student, teacher, and administrator assessments reported on in this document. The follow-up question might be, "If this is 'The Talk,' what are our schools doing about it?" or "Are We Walking the Talk?"

Wisconsin teacher education and curriculum mandates relative to EE seem to be effective given that this study found teachers were more active in providing EE if they had pre-service training and/or if they are working in a district with a functional EE curriculum plan. There is, however, much room for continued improvement which is validated by the questionable achievement of students on the environmental literacy assessment. Students' cognitive scores were low and they suggested that they would like to be exposed to more EE in their classrooms. Contrary to the students' request, there are a number of schools and teachers which admittedly are not offering quality EE experiences for their students.

The data in this document suggests that it is fair to say Wisconsin has begun "Walking the Talk" on environmental education, but more work needs to be done on improving the quality of EE where it is presently provided, and quality programs need to be initiated in schools where they are not being provided. There seems to be no question that environmental education is needed and desired in our schools.

Some Key Findings

In general...

...Wisconsin students, teachers, and administrators overwhelmingly believe education about the environment should be an important part of the core educational experience of K-12 students.

Wisconsin Students....

....believe environmental problems can be prevented and solved and feel they have a personal responsibility to help prevent and solve such problems.

....felt all sectors of society including government, business/industry, agriculture, education and family have a responsibility to maintain environmental quality.

....demonstrated cognitive scores (knowledge) which were considered low relative to ecological understanding and awareness of environmental issues.

....perceived themselves as moderately involved in selected personal and common environmental actions (e.g., recycling). They did not see themselves as using consumer practices to effect improvement of environmental quality.

....at the elementary level felt school and special activities like field trips contributed most to their understanding of environmental concerns.

....at the secondary level felt television and self-directed reading contributed most to their understanding of environmental concerns.

Wisconsin Teachers...

....felt it was a "good idea" to mandate EE curriculum plans in the schools.

....felt that pre-service teachers should have course work in EE.

....reported that more than 50% of the schools do not have an EE curriculum plan in operation.

....felt that infusion into other subjects was the most desirable way to pursue EE.

....felt time, materials, and training were factors that influence the offering of EE.

Wisconsin School Administrators (Principals and Curriculum Directors)...

....felt that environmental education should be a priority and that school districts should be required to develop and implement environmental education curriculum plans.

....reported that about a third of their ranks did not have the knowledge or background needed to promote EE in their schools.

....reported that from 20-40% of their schools do not have EE curriculum plans in operation and many that do have plans were concerned about the quality of those plans.

....reported that lack of funding, time and personnel were factors impacting the offering of EE in their schools.

....felt teachers needed to express more of an interest in EE.

....reported taking relatively more passive actions (e.g. verbal support, dissemination of information) than aggressive actions (e.g. funding, release time, or hiring of appropriate personnel) to support EE.

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Introduction

As science and society strive to gain more insight into how the world works, it is clear that one recurring axiom is that the natural environment plays a direct and significant role in determining human quality of life. As a result, citizens, on a daily basis, are expected to assimilate and act upon a growing list of environmental concepts such as sustainability, conservation, water quality, air quality, energy alternatives, solid and hazardous waste, recycling, etc. Additionally, poll after poll (Dunlap, 1992; Roper, 1992, 1995) indicate that the citizenry of the United States believe it is right and good that the public develop an environmental literacy or the ability to factor environmental ideals into individual lifestyles and social norms.

In the United States, an obvious indication of the societal commitment to environmental literacy can be found in the growing number of states that are working to establish or strengthen environmental education in their K-12 schools (Ruskey and Wilke, 1994). Wisconsin is an excellent case in point. The Wisconsin legislature has enacted several pieces of legislation intended to promote the development of environmental education within the state's K-12 schools. This type of legislation was instituted as far back as 1938.

Created in 1990, the Wisconsin Center for Environmental Education (WCEE) represents one of the more recent legislative initiatives established to assist schools in the development of environmental education. As part of its responsibilities, the legislature mandated that the WCEE assess the environmental education status and needs of Wisconsin students and teachers. The intent of this assessment was to identify avenues for promoting, facilitating, and establishing quality environmental education programs within the K-12 schools of Wisconsin.

Over the last four years, the WCEE has been actively involved in collecting data on the environmental literacy and needs of the state's students, teachers, and school administrators. With support and guidance from the Wisconsin Environmental Education Board and the Wisconsin Department of Public Instruction, the WCEE conducted an environmental literacy assessment of over 3,500 fifth grade and high school students. Additionally, over 900 teachers were surveyed to determine their perceived competencies and needs related to environmental education. Finally, more than 1,100 Wisconsin school administrators, (i.e., principals and curriculum coordinators) were surveyed to determine the degree to which they support environmental education and to learn what they felt were the most pressing needs related to the development of environmental education in Wisconsin schools.

This report combines the results and conclusions of the individual studies to provide the first comprehensive profile of K-12 environmental education in Wisconsin schools. Sections I through III of this document contain a summary description of the data collection processes, results, and conclusions as they respectively relate to the student, teacher, and administrator assessments. Copies of the data collection instruments with results are located in Appendices A, B, C, and D. Section IV presents comprehensive findings, implications, and strategies for improving environmental education in Wisconsin based on integration of results from the studies. If reviewed and interpreted appropriately, educators in Wisconsin can use the results presented here to significantly improve the process of environmental education in Wisconsin schools.