



EETAP *Resource Library*

"Advancing Education & Environmental Literacy"

April 1996

Number 1

Environmental Education and Learners with Disabilities

An important component of environmental education is the exposure of learners to nature and the world beyond the classroom. For learners with special needs, the creation of an experience outside the traditional learning sites can pose challenges for the teacher as well as learners themselves. Access to non traditional learning settings and equity for all learners are commonly expressed challenges. How, for example, does an educator provide equal access to stream monitoring for a wheel-chair constrained learner as for a learner with full mobility without losing the essence of learning? Or, how does a learner with a sensory impairment have a comparable nature experience when the activities requires use of the senses including the challenged sense?

The Americans with Disabilities Act (ADA) is the civil rights guarantee for persons with disabilities in the United States. The ADA extends civil rights protections for people with disabilities to employment in the private sector, transportation, public accommodations, services provided by state and local government, and telecommunications relay services. To prepare the individuals, challenged or otherwise, for dealing with testing situations necessitates a holistic approach to education. Environmental education supports and forms an important component of this strategy.

Creating learning opportunities for students with special needs can benefit not only the learner, but also enriches the experiences for the teacher and the other learners. Sensitivity to constraints and adaptations to the teaching plan and the types of activities to be conducted are sometimes relatively simple, and other times far from simple, to change. Although there is a tremendous amount of good information on resources to accommodate learners with special needs, information specifically related to environmental education has only recently become available.

Where are the resources?

Following is a list of some resources available for educators on *environmental education and learners with disabilities* found in the Educational Resources Information Center (ERIC) and Eisenhower National Clearinghouse (ENC) collections. To read about these resources and learn where to get them, search the ERIC or ENC collections on line or at a local library or university. On line, the material can be accessed by typing

<http://eelink.umich.edu>

Page down to EDUCATION AND INFORMATION directory, EDUCATION directory, ASKERIC or ENC, and click on either home page. You will then be able to search ERIC and ENC databases by following the appropriate pointers.

Print Resources

From ERIC

Filmer, R. "Environmental Education and the Disabled". *Environmental Education Bulletin*, no 3 (November 1990) p 26-23. (EJ 449 293)

Describes specific plans for making environmental education accessible to disabled people by adapting trail systems and facilities for safety, interpretive programing, and access. Encourages the inclusion of disabled people in the wide variety of environmental education programing by presenting solutions to traditional barriers.

Hughes, A. "Interpreting the spirit of ADA!". *Legacy*, v 6, no 3 (May-June 1995) p 6-7. (EJ 507 305)

Discusses work on a pilot project to develop guidelines for accessible interpretation that integrates disabled and mainstream visitors. Discusses program and facility designs and suggests ways to make existing interpretive programs more accessible to visitors with

disabilities.

Seiler, R. "Recent Trends and Future Directions of Research in Orienteering". *Scientific Journal of Orienteering*, v 10, no 1-2 (Fall 1994) p 3-23. (EJ 498 154)

Analyzes 220 documents on orienteering published 1984-94. Discusses publication numbers and types and content characteristics in the areas of psychological aspects, physiological demands, sports, medicine and health aspects, psychological-physiological interactions, training and coaching, school programs for children and teaching manuals, orienteering for the disabled, sociological aspects, environmental aspects, and history and future development. Contains 111 references.

Seiler, R. "An annotated Bibliography". *Scientific Journal of Orienteering*, v 10 (Fall 1994) p 1-78. (EJ 498 157)

Annotated bibliography of 220 books, monographs, and journal articles on orienteering published 1984-94 from SPOLIT database of the Federal Institute of Sport Science (Cologne, Germany). Sections include environmental aspects and programs for the disabled. Contains author index.

From ENC

Access in Word and Deed. Project on Science, Technology and Disability, Directorate for Education and Human Resources Programs, American Association for the Advancement of Science. Washington, DC: American Association for the Advancement of Science, 1991. (ENC-000136)

This guide is one in a series of four Barrier Free in Brief booklets designed to improve access to science and engineering education and careers for people with disabilities. This booklet has two sections. The first gives suggestions on speaking to and about people with disabilities and discusses appropriate language, courtesies, and stereotypes. The second section lists individuals with disabilities who are members of The American Association for the Advancement of Science (AAAS) Resource group of Scientists and Engineers and provide consultancies on related topics.

Access to Science Literacy. Project on Science, Technology and Disability, Directorate for Education and Human Resources Programs, American Association for the Advancement of Science. Washington, DC: American Association for the

Advancement of Science, 1991. (ENC-000137)

This guide is one in a series of four Barrier Free in Brief booklets designed to improve access to science and engineering education and careers for people with disabilities. This booklet is designed to increase accessibility to out of school science programs and activities; it provides information for directors of informal science programs and for parents and teachers of young people with disabilities. The booklet includes practical advice for finding programs and a list of resources for assistive technology for specific disabilities and adaptations to disability in farm and rural settings.

Laboratories and classrooms in science and engineering. Project on Science, Technology and Disability, Directorate for Education and Human Resources Programs, American Association for the Advancement of Science. Washington, DC: American Association for the Advancement of Science, 1991. (ENC-000138)

This guide provides information and resources on adapted facilities, teaching styles and general accessibility that incorporates the needs of students with disabilities in any educational institutions as well as in research laboratories. The booklet suggests strategies for creating classroom and laboratory accommodations that enhance accessibility according to the type of disability.

Workshops and conferences for scientists and engineers. Project on Science, Technology and Disability, Directorate for Education and Human Resources Programs, American Association for the Advancement of Science. Washington, DC: American Association for the Advancement of Science, 1991. (ENC-000139)

This booklet has been developed to assist professors, administrators, and laboratory and program directors in planning and conducting professional meetings that are barrier free for all participants. It discusses the need to organize barrier free meetings. Checklists, sample forms for meeting participants, and a list of 13 additional resources are included.

This information sheet was prepared by Joe E. Heimlich, Ph. D., and Sabiha S. Daudi, GRA, EETAP Resource Library.

EETAP Resource Library is a project of Environmental Education Training and Partnership effort. The goal of the Resource Library is to increase educators' access to and use of databases such as ENC and ERIC. This information sheet may be freely reproduced for educational purposes.