

Introduction

Guidelines for the Preparation and Professional Development of Environmental Educators is a set of recommendations about the basic knowledge and abilities educators need to provide high-quality environmental education. The guidelines are designed to apply:

- Within the context of pre-service teacher education programs and environmental education courses offered to students with varied backgrounds such as environmental studies, geography, liberal studies, or natural resources;
- To the professional development of educators who will work in both formal and non-formal educational settings, offering programs at the pre-kindergarten through 12th grade levels; and
- To full-time environmental educators as well as for those for whom environmental education is just one of their responsibilities.

Environmental educators work in a variety of settings, at a variety of jobs. They teach in public and private classrooms, and lead activities for children and adults at non-formal educational institutions such as nature centers, zoos, museums, and parks. They teach at universities in education, environmental studies, geography, natural resource, and science programs. They develop curriculum materials and administer national, state, and local programs. Regardless of the setting, **Guidelines for the Preparation and Professional Development of Environmental Educators** outlines the experiences and learning that will help them deliver instruction that effectively fosters environmental literacy.

This document presents an ambitious overview of the abilities and knowledge of a well-prepared environmental educator; it does not seek to address more general educational competencies. The guidelines provide a mechanism for gauging the quality of pre-service and in-service preparation programs and the abilities of environmental educators. Instead of offering fixed rules, these guidelines suggest a broad vision—a goal to work toward and a guide for professional and programmatic development.

Environmental Education: A Vision for the Future

The guidelines are grounded in a common understanding of effective environmental education. For many environmental educators, that understanding is rooted in two founding documents of the field: the Belgrade Charter (UNESCO-UNEP, 1976) and the Tbilisi Declaration (UNESCO, 1978).

The Belgrade Charter was adopted by a United Nations conference and provides a widely accepted goal statement for environmental education:

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.

Two years later, at the world's first intergovernmental conference on environmental education, the Tbilisi Declaration was adopted. This declaration built on the Belgrade Charter and established three broad goals for environmental education. These goals provide the foundation for much of what has been done in the field since 1978:

- *To foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;*
- *To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment;*
- *To create new patterns of behavior of individuals, groups and society as a whole towards the environment.*

As the field has evolved, these principles have been researched, critiqued, revisited, and expanded. They still stand as a strong foundation for an internationally shared view of the core concepts and skills that environmentally literate citizens need. Since 1978, bodies such as the Brundtland Commission (Brundtland, 1987), the United Nations Conference on Environment and Development in Rio (UNCED, 1992), the International Conference on Environment and Society in Thessaloniki (UNESCO, 1997), and the World Summit on Sustainable Development in Johannesburg (United Nations, 2002) have influenced the work of many environmental educators. By highlighting the importance of viewing the environment within the context of human influences, this perspective has expanded the emphasis of environmental education by focusing more attention on social equity, economics, culture, and political structure.

The Instructional Vision of Environmental Education

These guidelines outline the abilities and understandings—or competencies—an educator needs to implement environmental education successfully. Environmental education is a comprehensive and cohesive whole that both draws on and advances broader educational goals and instructional methods. Taken by themselves, these competencies may not capture this rich vision.

Environmental education is, at its heart, an integrative undertaking. Instructors **teach across disciplines**, linking the methods and content of natural and social sciences, arts, mathematics, and humanities to help learners fully understand and address complex environmental issues. Environmental educators need the ability and the commitment to keep the whole picture in mind as they guide students toward environmental literacy.

The learner is an active participant in environmental education. If learning is to become a natural, valued part of life beyond school, instruction should **engage the learner in the process of building knowledge and skills** and be guided in part by the student's interests.

Three important ideas that shape the instructional vision of environmental educators

Systems

The idea of systems helps make sense of a large and complex world. A system has parts that can be understood separately, but the whole cannot be understood completely without recognizing the relationships among its parts. The human body can be seen as a system; so can galaxies. Organizations, individual cells, communities of animals and plants, and families can all be understood as systems. And systems are nested within other systems.

Interdependence

Human well being is inextricably bound with environmental quality. We and the systems we create—our societies, politics, economics, cultural activities, technologies—affect the systems and cycles of the rest of nature. Since we are “in” the system, a part of nature rather than outside it, we are challenged to recognize the ramifications of our interdependence.

The importance of where one lives

Environmental education begins close to home, encouraging learners to explore and understand their immediate surroundings. The sensitivity, knowledge, and skills gained by forging this local connection provide a base for moving out into larger systems, broader issues, and a lifetime of learning about causes, connections, and consequences.

Environmental issues are complex and multifaceted. Especially because they can prompt deep feelings and strong opinions, educators must take a **balanced approach to instruction**. Environmental educators incorporate differing perspectives and points of view evenhandedly and respectfully and present information with intellectual honesty.

They involve learners in critical evaluation of data, results, models, conclusions, and opinions. Fairness and accuracy are watchwords for instruction.

Environmental education works both in and outside the classroom. Instructors foster learners' innate curiosity and enthusiasm, providing them with **early and continuing opportunities to explore their environment**. Experiences outside the classroom are an important instructional strategy for engaging students in direct discovery of the world around them. This awareness of their local community can prompt a personal commitment to apply skills and knowledge in pursuit of environmental quality and quality of life.

Finally, environmental education provides opportunities for learners to enhance their capacity for **independent thinking and effective, responsible action**. Engaging in individual and group experiences helps learners develop these capacities independently and in collaborative situations that anticipate the ways in which problem-solving happens in the community, on the job, and in the family. A **strong emphasis on developing communication skills** helps learners demonstrate and disseminate their knowledge.

The Guidelines at a Glance

This list includes the six themes and general guidelines required for competency in environmental education.

Theme #1 - Environmental Literacy

Environmental Educators must possess the understandings, skills and attitudes associated with environmental literacy. Educators must gain a working knowledge of the content and skills they will be teaching, with a mastery, at minimum, appropriate to the grade level at which they will be teaching.

1.1 Questioning, analysis and interpretation skills

Developing environmental literacy depends on a willingness and ability to ask questions about the surrounding world, speculate and hypothesize, seek and evaluate information, and develop answers to questions. Environmental literacy requires a familiarity with some basic modes of inquiry, a mastery of fundamental skills for gathering and organizing information, and an ability to interpret and synthesize information and communicate explanations.

1.2 Knowledge of environmental processes and systems

Environmental literacy hinges on understanding the processes and systems that comprise the environment, including human social systems and their influences. That understanding is based on knowledge synthesized from across the traditional disciplines (especially the natural and social sciences) and includes knowledge about:

the Earth as a physical system; the living environment; humans and their societies; and how society and the environment are linked.

1.3 Skills for understanding and addressing environmental issues

Environmental literacy includes the abilities to learn about, evaluate and act on environmental issues. The skills and knowledge outlined in the first two guidelines (1.1, questioning and analysis skills and 1.2, knowledge of environmental processes and systems) are applied and refined in the context of these issues – the real-life dramas where differing viewpoints and interpretations of data about environmental problems and their potential solutions are played out.

1.4 Personal and civic responsibility

Environmental literacy is activated by individual commitment. Environmentally literate citizens are motivated and empowered to act on their own informed conclusions about what should be done to ensure environmental quality. In developing and applying concept-based learning and skills for inquiry, analysis and action, people cultivate an understanding that what they do as individuals and in groups makes a difference.

Theme # 2 – Foundations of Environmental Education

Environmental educators must demonstrate a basic understanding of the goals, theory, practice and history of the field of environmental education. This knowledge provides a solid foundation on which educators can build their own practice.

2.1 Fundamental characteristics and goals of environmental education

Educators understand environmental education as a distinct field and know its defining characteristics and goals.

2.2 How environmental education is implemented

Educators understand that environmental education takes place in a variety of settings and that sources of support, program requirements and other factors vary from context to context.

2.3 The evolution of the field

Educators are familiar with how the field of environmental education has changed over time, and how it continues to change.

Theme # 3 – Professional Responsibilities of the Environmental Educator

Environmental educators must understand and accept the responsibilities associated with practicing environmental education. In their pre-service and in-service preparation, educators should come to understand environmental education as a profession that maintains consistent and high standards for instruction and professional conduct.

3.1 Exemplary environmental education practice

Educators understand their responsibility to provide environmental education that is appropriate, constructive, and aligned with the standards of the field.

3.2 Emphasis on education, not advocacy

Educators understand that their commitment as environmental educators is to provide accurate, balanced and effective instruction – not to promote a particular view about environmental conditions, issues, or actions.

3.3 Ongoing learning and professional development

Educators are aware of the need to be active learners in their professional lives.

Theme # 4 – Planning and Implementing Environmental Education

Environmental educators must combine the fundamentals of high-quality education with the unique features of environmental education to design and implement effective instruction. Their professional preparation should enable educators to provide the interdisciplinary, hands-on, investigative learning opportunities that are central to environmental education.

4.1 Knowledge of learners

Educators know how to tailor instructional approaches to meet the needs of, yet challenge, different learners.

4.2 Knowledge of instructional methodologies

Educators are familiar with and can employ a range of instructional methods that are particularly suited to environmental education.

4.3 Planning for instruction

Educators are able to plan age-appropriate environmental education instruction and programs that meet specific instructional goals.

4.4 Knowledge of environmental education materials and resources

Educators are aware of a range of materials and resources for their environmental education efforts and understand how to access, evaluate and use these resources.

4.5 Technologies that assist learning

Educators are familiar with a range of technologies available to assist student learning.

4.6 Settings for instruction

Educators understand the importance of a safe and conducive learning environment both indoors and outside.

4.7 Curriculum planning

Educators are familiar with ways of including environmental education in the curriculum.

Theme # 5 – Fostering Learning

Environmental educators must enable learners to engage in open inquiry and investigation, especially when considering environmental issues that are controversial and require learners to seriously reflect on their own and others' perspectives.

Educators' training should prepare them to foster an environment, including participant interactions, that is conducive to learning.

5.1 A climate for learning about and exploring the environment

Educators understand how to create a climate in which learners are intellectually stimulated and motivated to learn about the environment.

5.2 An inclusive and collaborative learning environment

Educators know how to maximize learning by fostering openness and collaboration among learners.

5.3 Flexible and responsive instruction

Educators know how to augment proper planning with the flexibility that allows them to take advantage of new instructional opportunities.

Theme # 6 – Assessment and Evaluation

Environmental educators possess the knowledge, abilities and commitment to make assessment and evaluation integral to instruction and programs. Professional preparation should provide educators with tools for assessing learner progress and evaluating the effectiveness of their own programs.

6.1 Learner outcomes

Educators understand the importance of tying assessment to learning.

6.2 Assessment that is part of instruction

Educators are familiar with ways of incorporating assessment into environmental education.

6.3 Improving Instruction

Educators know how to use their instructional experiences and assessments to improve future instruction.

6.4 Evaluating Programs

Educators understand the importance of evaluating environmental education programs and are familiar with basic evaluation approaches.

References:

Guidelines for the Preparation and Professional Development of Environmental Educators. 2004. ISBN 1-884008-78-X. 43pp.

Excellence in Environmental Education: Guidelines for Learning (Pre K-12). 2004. ISBN 1-884008-75-5. 121 pp.