

**ENVIRONMENTAL EDUCATION AS STRATEGIC COMMUNICATION: A PARADIGM FOR
THE 21ST CENTURY**

by

Sam H. Ham, Ph.D.

Department of Resource Recreation and Tourism
College of Natural Resources
University of Idaho
USA

CITATION: Ham, Sam H. 1997. Environmental Education as Strategic Communication-A Paradigm for the 21st Century. *Trends* 34(4):4-6,47.

Presented to the International Symposium on Human Dimensions of Natural Resource Management in the Americas, Belize City, Belize

February 27, 1997

ENVIRONMENTAL EDUCATION AS STRATEGIC COMMUNICATION: A PARADIGM FOR THE 21ST CENTURY

Sam H. Ham
University of Idaho
USA

ABSTRACT

Environmental education in the Americas is presented as a strategic communication problem. In this paradigm, key audiences are identified according to their relationship to environmental problems and management needs. Institutions, both public and private, are identified according to their ability to reach these audiences in time and space. Communication media and the physical and social contexts in which they are employed are identified according to the needs, tendencies and preferences of the audiences. Decisions about messages and communication content are based, in part, on the above factors as well as on research into the belief systems that give rise to each audience's problem behaviors. The theoretical underpinnings of this paradigm are presented along with representative research findings. Contemporary examples of how this paradigm is being applied in North, Central and South America are discussed.

Introduction

The principal point of this paper is that environmental education (EE) in the Americas must do a better job in the 21st Century of reaching important audiences with environmental ideology than it has done in this century. To do this, it must be seen more as a strategy (in the marketing sense) in which key audiences are identified because of the ways in which they contribute or could potentially contribute to specific environmental problems. Both formal and non-formal EE must respond by organizing themselves to reach these strategic audiences, both in time and space, with carefully developed messages tailored to the interests, tendencies and preferences of *each* audience and targeted at the specific problematic behaviors in question.

This way of viewing EE will sound new and perhaps unorthodox to some. Yet, to others it will sound like common sense. In either event, however, the reality is that this approach--this way of thinking about EE as *strategy*--has not been put into practice in most of the world, outside of a few examples in Central America and Africa.

A Common-Sense Paradigm Shift

Thinking about EE as strategy represents a paradigm shift. It represents a change from viewing and practicing EE as more or less a voice piece for "loving and respecting nature," to viewing and practicing EE as a more systematic and planned persuasive communication program. In short, that is the paradigm presented here.

I most certainly am *not* saying that promoting "love and respect for nature" is a bad idea. Obviously, advocating this ideology remains a central long-term goal of most environmental educators, and in fact, binds many of us not only professionally, but spiritually, despite our other differences. Clearly, most of us already love and respect all that is natural. But we are not representative, in this respect, of the diverse audiences we are trying to influence.

Loving and respecting nature the way we do is probably not something everyone else is capable of. Perhaps they love and respect other things that are just as important to them. Perhaps some of them are very poor and must face each day worried about more immediate needs like their next meal or whether a child will

die from diarrhea. And perhaps some are just different than us. They find inspiration in their religions, in their traditions, and in belief systems that are as deeply held, and as morally valid, as ours. Loving nature the way we do, will be very hard for some of these people.

But some of them are farmers who use toxic agrochemicals when economical and effective organic substitutes exist, or who needlessly burn their fields. Others hunt wild and threatened species that could be domesticated for meat production. Others are politicians who fail to support the passing or enforcement of nature protection legislation. Some are religious leaders who unknowingly advocate unsustainable living and sexual practices. Simply advocating general awareness of the awesome beauty in nature's design is not going to change the behaviors of these specific audiences or the dozens of others problematic behaviors that negatively influence the local and global environments.

In fact, by any reasonable analysis, environmental educators have been doing a good job the past 20 or 25 years of advocating and promoting general consciousness about the environment. And general awareness certainly serves an important purpose, but it is *not* the same as targeting actual *specific* behaviors that are responsible for *specific* environmental problems. That is the new common-sense paradigm discussed here.

Strategic Planning for Environmental Education

In this paradigm, institutions whose educational missions bring them into contact with different segments of the population become key players in planning and carrying out a coordinated, and on-going campaign for reaching their audiences. Identifying these audiences starts with the problems we are trying to treat or avoid. Knowing whose behaviors contribute to or cause each of these actual or potential problems tells us who we should be trying to reach. In this way, starting with an analysis of environmental problems leads us to an identification of strategic audiences for formal and non-formal EE.

And knowing the specific behaviors each audience engages in that contribute to the problem (whether it be an action like agricultural burning, or an inaction like not supporting the enforcement of an environmental law, or not recycling at home) tells each EE institution what it should be communicating to its audiences. Such an approach goes far beyond telling "everyone" that we should all "love and respect nature." This paradigm delves centrally into persuasive communication for behavior modification.

Reaching each audience effectively will require the intelligent programming of media and messages which must take into account not only each audience's interests (e.g., we would not use the same media or approach to reach elected officials as we would to reach adult women in the campo of Honduras, domestic tourists in a zoo or national park in New York), but *where* they are reachable both in time and space. For example, many rural Honduran women listen to radio in the mornings while they are making tortillas; zoo and park visitors in New York will be exposed to interpretive programs, third graders are reachable through their teachers as well as through community activities and after-school programs; and elected officials are reachable through meetings, special seminars and via lobbyists.

Seen this way, strategic EE planning becomes an intricate puzzle involving problems, audiences, media and messages. But through careful thinking, and careful planning that involves the coordinated efforts of several institutions working together, all the pieces to the puzzle can be readily identified and put on paper in the form of a strategic plan for environmental education.

Formal and Non-Formal Environmental Education

In this paradigm, strategic EE planning takes into account both the formal (school-based) audiences for environmental education (K-12 and post-secondary), as well as the more diverse and in some people's point of

view, more strategically important, non-formal EE audiences (those like the elected officials, zoo and park visitors, rural women, male farmers, etc.) that are largely reachable only outside of the formal school system. (See, for example, Wood and Wood 1990 and Ham et. al. 1993).

Generally, the **formal** EE audiences (students) represents a *long-term* strategy (an investment, if you will, in the long-term environmental literacy of a community, state or nation), whereas many strategic audiences for **non-formal** EE will correspond to the current specific environmental problems their behaviors help create in the *immediate and short-term*. This is not always the case, of course, as in the case where school children may be encouraged to engage in specific new behaviors such as home gardening in the Nicaragua or planting nitrogen fixers in El Salvador. But generally speaking, formal and non-formal EE audiences differ in the respect that the non-formal groups are usually selected with specific and immediate problems in mind (such as the use of carcinogenic pesticides by male farmers, prevention of domestic water contamination by men and women, or the use of efficient wood-burning stoves by whole families). (See Ham and Krump 1997, Ham et al. 1993 and Ham et al. 1989.)

In this sense, formal EE may often take on more of the "loving and respecting nature" paradigm in its scope and content. Whereas non-formal EE is usually more focused on influencing specific behaviors. But you will know your strategic audiences best, and what you know about them will tell you which approach is needed, if not both. Notice also that, in this paradigm, interpretive programs (or environmental interpretation) is not some separate disparate function that is somehow fundamentally different from environmental education. Interpretive programs are simply those components of the strategic environmental education plan that correspond to leisure settings like parks, protected areas, zoos and museums. They are virtually *always* a part of the *non-formal* arena.

My experience the past several years has taught me that some of the developing countries I've worked in are quite a bit ahead of the United States and other so-called "developed countries" in terms of this type of strategic planning for environmental education--in terms of *systematically* thinking about their environmental problems, identifying who or what segments of society are responsible for or contribute to those problems, organizing those institutions in the formal and non-formal sectors who are positioned to reach those audiences, and then programming the coordinated actions of those institutions over space and time to achieve desired outcomes.

This approach may be seen as a marketing process--in many ways similar to how businesses promote themselves, their products and their services, or how our politicians design their campaigns to win our votes. They approach planning their communication this way because it works. They figure out what signals they need to send, and to whom, in order to produce desired results, and then they set about the task of sending those signals in ways, at places, and at times, that suit the audiences they are intended to persuade.

Thinking as communication strategists, we can see that a broad range of communication specialists--from classroom teachers and park interpreters, to zoo curators, print and broadcast journalists, extension agents, ecotourism entrepreneurs, and religious and military leaders--has a strategic role to play in the environmental education process. Each of us, by virtue of our jobs and the mission of the institutions or organizations we work for, is positioned to reach a different segment of society (or "market segment," if you will). And together, we stand to reach *every* citizen with strategic messages about the environment--*designed* for them, tailored to their tastes, preferences, and abilities, and delivered according to their needs and time constraints. If we fail to see environmental education as a strategy, we fail to see this larger significance, and the larger context, of what each of us does--and that together we have the potential for a coordinated effort much larger than any of us can achieve alone. We have the potential to reach virtually every segment of society.

Costa Rica's National EE Master Plan--An Example

Costa Rica was one of the first countries in the world to adopt the strategic planning paradigm I have been describing here. Like most developing countries, Costa Rica's environmental education strategy is a *national* master plan, rather than a statewide plan. This is because the country's small size lends itself to national planning and a national education policy. In my own country, a statewide scope would be more appropriate and more practical, since in the United States education policy is the responsibility of the states.

Although the document (Guier 1989) begins with an analysis of Costa Rica's environmental problems and strategic audiences for formal and non-formal environmental education, the heart of the strategy consists of a series of matrices in which key audiences in the formal and non-formal sectors are identified, and the roles of the different institutions who are positioned to reach them are detailed. Specific desired outcomes corresponding to each recommended action or effort are described, as are the required time frame and the human and financial resources necessary to carry out each activity. I am aware of similar strategies from Guatemala and Honduras, and at least a half dozen other countries in both hemispheres who have followed similar approaches.

Once completed, such a strategy would serve any country or state well. It would function as a "blue-print" for environmental education *efforts* and environmental education *development*. That is, it would not only help guide the coordinated actions of the many institutions involved in formal and non-formal environmental education, but it would also help lead you more quickly to obtaining the financial and human resources needed to improve and expand what you are doing.

A Word on Theoretically-Driven Message Development

A discussion of how to approach the development of messages aimed at strategic audiences is beyond the scope of this paper. Most important in the development of messages is an understanding of the nature of persuasive communication, both the art and especially the science of it, if educational programs are going to produce desired results. Briefly, a widely adopted theoretical foundation for message development is the Theory of Reasoned Action (see Fishbein and Ajzen 1975) or its close counterpart, the Theory of Planned Behavior (see Ajzen 1991). Both have been repeatedly corroborated by research and stand today among the most successful and intuitively appealing theoretical frameworks for social intervention programs (not only environmental education where they are used extensively, but in many other fields, from consumer advertising to health). The main practical value of these theories is that they emphasize that influencing human behavior requires changing attitudes, but communication that directly targets attitudes or the behavior, itself usually *will not work*. The most compelling and persuasive communication is that which targets the audience's *beliefs* that give rise to the attitudes and behavior. Readers interested in a more detailed discussion of how this reasoning might be applied in environmental education may refer to Ham and Krumpal (1997), Ham and Krumpal (1996), and Ajzen (1992).

Summary and Conclusion

In summary, this common-sense paradigm for the 21st Century sees environmental education as a strategic communication problem. In this paradigm, key audiences are identified according to their relationship to environmental problems and management needs. Institutions, both public and private, are identified according to their ability to reach these audiences in time and space. Communication media and the physical and social contexts in which they are employed are identified according to the needs, tendencies and preferences of the audiences. Decisions about messages and communication content are based, in part, on the above factors as well as on research into the belief systems that give rise to each audience's problem behaviors.

LITERATURE CITED

- Ajzen, Iczek. 1992. Persuasive Communication Theory in Social Psychology: A Historical Perspective. In, M.J. Manfreda (ed.), *Influencing Human Behavior--Theory and Applications in Recreation, Tourism and Natural Resources Management*. Champaign, IL, USA: Sagamore Publishing, 1-27.
- Ajzen, Iczek. 1991. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes* 50:179-211
- Fishbein, Martin and Iczek Ajzen. 1975. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, MA, USA: Addison-Wesley Publishing.
- Guier, Estrella María. 1989. *Plan Maestro de Educación Ambiental*. San José, Costa Rica: Editorial Heliconia.
- Ham, Sam H. 1992a. *Environmental Interpretation--A Practical Guide for People with Big Ideas and Small Budgets*. Golden, CO, USA: Fulcrum Publishing/North American Press.
- Ham, Sam H. 1992b. *Interpretación Ambiental--Una Guía Práctica para Gente con Grandes Ideas y Presupuestos Pequeños*. Golden, CO, USA: Fulcrum Publishing/North American Press.
- Ham, Sam H. 1996. Educación Ambiental--El Papel Estratégico de la Comunicación en el Desarrollo Sostenible en América Central. Presentación pública para el Instituto Nacional de Biodiversidad (INBio), Santo Domingo de Heredia, Costa Rica, 28 marzo.
- Ham, Sam H. and Edwin E. Krumpel. 1997. Identifying Audiences and Messages for Nonformal Environmental Education--A Theoretical Framework for Interpreters. *Journal of Interpretation Research* 1(1):11-23.
- Ham, Sam H. and Edwin E. Krumpel. 1996. A Belief-Centered Approach to Designing Environmental Education for Sustainable Development. Keynote presentation to the International Symposium, North American Association for Environmental Education Conference, San Francisco, CA, USA, November 2.
- Ham, Sam H. David S. Sutherland, and Richard A. Meganck. 1993. Applying Environmental Interpretation in Protected Areas of Developing Countries: Problems in Exporting a U.S. Model. *Environmental Conservation* 20(3):232-42.
- Ham, Sam H., David S. Sutherland and James R. Barborak. 1989. Role of Protected Areas in Environmental Education in Central America. *Journal of Interpretation* 13(5):1-7.
- Wood, Diane and David Wood. 1990. *How to Plan a Conservation Education Program (Cómo Planificar un Program de Educación Ambiental)*. Washington, DC, USA: World Resources Institute & US Fish and Wildlife Service, Office of International Affairs.