WILDLIFE 2000 – IT'S HAPPENING IN THE CLASSROOM RIGHT NOW

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There was once a noted financier who was looking for a good accountant to help him keep track of all his many financial dealings. He interviewed a number of candidates and asked each the usual questions--education, experience, background and all the rest. When the interview was about over, the financier asked one last question, "What is two plus two?" Of course, he always got the obvious answer, "four." Until one day a bright young man came back at him with, "What do you want it to be?" Well, he is the one who got the job.

The story has a point for those of us interested in environmental and natural resource considerations. What will the future be for the health of the environment, for wildlife, for all the amenities of life? Well, what do you want it to be?

For hundreds of years of human history, there would be very little question as to what the future would be like--it would be just about like the past. A citizen of ancient Rome, for example, could probably fit in and get along pretty well in the days of George Washington. The ways of doing things--transportation, agriculture, producing goods and services were pretty much the same for many centuries of human history. As late as 1940, things were pretty stable, and the future could be predicted with some degree of accuracy.

But in 1977 things are different. Why? Our technology makes the difference--a technology which enables us to manipulate the environment to a degree never before possible. We don't have complete dominion over the earth--not by a long shot--but we can do things today never before dreamed possible, and our technological skill is increasing daily.

Despite all the complexities, our technology is merely a collection of tools which enable us to do things we could not do with our hands alone. Tools, and technology are completely neutral. We can, for example, use a hammer to build a house, crack a walnut, smash a window, or whatever. We can direct our technology to turn cities and people into cinders, defoliate,

pollute, deface, and destroy--or we can use it to build beauty and peace on our land and to preserve and enhance the amenities and resources which give meaning and purpose to life.

What determines how we use our technology? Although we are somewhat committed by past decisions, individual values and those of society, to a great degree, direct our manipulation of the physical environment. If you are mathematically inclined, you can almost make a formula of it: E^2 (future environments) = Natural Environment + Human Values x Power of Technology. If you are artistically inclined, you can say that man paints or perhaps, more properly, carves a likeness of himself on the land. You can tell what we are by what we do to the earth--our only home.

Well, given that our near and long term environments will be shaped by our technology and that individual and social values to a great degree direct this technology, what can and should society be doing about the situation?

Education is certainly part of the answer. Values, personal and social, skills and a knowledge base upon which tomorrow's environmental decisions will be based are critically important, and they are being shaped in the schools of today. Not only in the schools, but in all areas of human activity--the home, churches, the political arena, the electronic and print media, the market place--it's happening right now, and we're all a part of it.

Now you may have heard that there isn't enough environmental education going on in our schools. Nothing could be further from the truth. There is quite a bit happening in this area--perhaps too much. Let's have a look at some of the ways by which we educate students environmentally.

First of all is education of omission. What we don't say is equally as or perhaps more important than what we do say. If we ignore future environmental problems and teach as if a livable environment with abundant resources are givens, then we are doing a major disservice to the students we serve. Saying nothing is saying something.

Unfortunately, lots of people--both in and out of the classroom are a part of this kind of environmental education. Our textbooks and instructional materials often follow this mode despite state law which says that all adopted materials must emphasize wise resource use and protection of the environment. Honestly now, how many items on the adoption list really meet this criteria?

All educational programs are future oriented and presuppose a livable environment. We just can't assume that this will automatically come to pass, but must work at a viable environmental ethic at all levels and in all subject areas--which, by the way, is also required by state law.

Another way we educate students is through misinformation. Elementary teachers are required by law to teach 19 subjects. Many are good at several--few are expert at all. Teaching is as much an art as science, and so the personal interaction between students and teachers once that classroom door closes is all important. Teachers must be informed on environmental matters, and their information must be accurate. It is so easy to pass on something heard at the grocery store or from an acquaintance, seen on TV or in the popular press. Is it accurate? Is this information important for children to have?

Providing solid information to teachers is, in my opinion, an important obligation of those experts in resource or environmental technology. I have faith in teachers and our educational system. They will respond if they understand the situation and have the facts. But they do need expertise, accurate information, usable materials, facilities, and other resources to do an effective job.

One of the most important ways in which we educate youngsters is by examples we set for them. As Paul Brandwein once observed, "What you are speaks so loudly I can't hear what you're saying."

Certainly the examples we set personally and through our social system affect youngsters' attitudes towards the environment and its resources. Can they really believe there is a petroleum shortage when Mom cranks up the Belchfire Eight to drive three blocks for a spool of thread? Energy crunch? What about all those blazing neon signs, floodlit playgrounds, year-round heated swimming pools, and all the rest? Water conservation? Well, we really need that green front lawn don't we? And what would people think if we drove around in a dirty car?

Politically speaking, it is often much more expedient to opt for the easy out when handling long-term environmental problems, leaving the bullet biting for others. And so our politicians sometimes educate youngsters to take the easy route, leaving problems we have created for others to solve later on--if they can.

Ever watch TV programs directed at kids? The message is pretty clear: things are important, you must have more. The message directed at adults may be a little more sophisticated, but the "buy it, use it up, and throw it away" ethic is very much a part of our lives. Waste has become our major product.

Now I enjoy the good life as well as anyone and I'm not suggesting we all start living in caves and eating roots and nuts. But let's face it, we all do a lot of dumb, wasteful things, and we could cut down quite a bit if we tried. It's really worth the effort if we care about kids and their future.

Still another way of educating students is through programs of misinformation. Let's face it, there are a few wolves in the forest and they try to use the schools to indoctrinate students in their particular bias. Sometimes the zealot is well meaning, but that doesn't excuse the damage he does. It takes time to check things out and be sure of the honesty materials you are using--particularly when they are beautifully printed on slick paper in 25 colors, or come in the form of a ten projector multi-media presentation. A good test is to ask yourself if the presentation honestly represents all sides of the issue and promotes critical thinking and careful evaluation rather than blind acceptance. In short, does it teach kids what to think or how to think?

I have saved for last the really effective and worthwhile environmental education programs. How can you judge a good environmental education program? Here are some important points to check.

First of all, effective programs are interdisciplinary. When you structure a program which will help students develop the attitudes, knowledge, and skills necessary to live in harmony with a finite ecosystem and learn to solve environmental problems, you are into quite a number of subject and discipline areas--science, social science, economics, communications skills, environmental technology, mathematics, political science, practical arts, and lots more. The point here is that environmental education (EE) is not a subject in and of itself, but a way of organizing subjects, disciplines and information.

Another characteristic of a good EE program is that it is concerned with people. Our goal should be to create and maintain a physical environment in which the human potential can develop to its fullest. Environmental Education should not only be concerned with a healthy environment and adequate resources, but it must also express a concern for the amenities--the beauties comforting and enhancing experiences which give meaning and purpose to life. A sensitive environment as Paul Brandwein calls it.

Dr. Betty Hone, one of the best teacher educators I know, insists that every good learning experience must stand the "so what" test. That is, how does this learning experience relate to the lives of the student? How will it help them? Why do they need it? Let's be sure we keep the "so what" in mind in all our EE activities. What we do must relate to their lives and be important to them if we are to be successful.

And while we are at it, let's not forget that environmental Ed can emphasize the positive and should be fun for kids. It is about time we abandoned the gloom and doom cliches--the oil-soaked birds, the bulldozer, dead fish and all the rest. Kids do tune us out on this after awhile.

Good EE programs utilize community resources--both human and natural. What better way of educating youngsters than by involving them in working with appropriate community agencies to solve a local environmental problem? Federal, state and local agencies, private conservation groups, business and industry, museums, civic clubs--most or all can and should be working with schools in EE. When viewed in this perspective, EE can be seen as a means for bringing about some major and much needed changes in our entire educational system. It provides us with a way of making the entire community the place where learning takes place, rather than the classroom.

The last characteristic of a good EE program I will cite is one I mentioned a few paragraphs back, but which is so important that it bears repeating. Good EE programs should be concerned with teaching kids how to think, not what to think. It is so easy to lay on the "true facts" and the "you oughttos," isn't it? Yet no one really knows what the future holds for us and we can't be sure that kids will be able to solve tomorrow's problems with today's facts and ways of doing things. Ways of evaluating information, planning, solving problems, and making decisions are the best tools with which we can equip youngsters to face an unknown future.

Problem solving experiences--either through actual community projects, or through simulations are good ways of building these skills and should be a part of all good programs.

I wish I could say that the majority of programs offered in the schools are like the ideal one I have described, but that simply isn't the case. Environmental Education simply isn't a major priority of the education community. In a recent survey by the State Department of Education, Departmental professionals and school administrators were asked to prioritize 50 educational programs offered in schools. EE came in 43rd. Perhaps it wouldn't have done even that well if I hadn't voted five times! The allocation of resources is a good measure of commitment. Currently, the Department of Education is spending about $400,000 on Environmental Education for a statewide program. The budget for Driver Education is $22 million.

A recent survey indicates that although EE is required in all California schools, less than 25% of school districts have a basic policy statement on the subject. Less than 50% have done anything at all in the area of teacher training. Most don't have anyone directly responsible for assisting teachers in the area. I don't know what the situation is in other states, but the picture is far from rosy here in California, and we are often cited as being one of the national leaders in the EE field.

Well, all this brings us down to my main purpose today. To help you see that there <u>is</u> a problem, that <u>you</u> are involved, whether or not you want to be, and that if you care anything at all about our environmental future, you'd better figure out what you need to do and learn to be effective in doing it.

If you are going to have any effect on the course of environmental education, it is important to understand the structure of the educational establishment, so let's take a look at it.

At the international level, UNESCO is working to develop some overall EE program with commonality and coordination. The UN will sponsor a ministerial level EE conference in October, 1977 at Tbilisi, Soviet Union.

At the federal level, the US Office of Education provides funding, programs, leadership through the Environmental Education Act (PL91-516). Other agencies provide miscellaneous services, publications, expertise, etc. The Federal Interagency Committee on Education (FICE) has developed a framework to coordinate federal EE programs and activities.

The Alliance for Environmental Education is an organization of organizations representing the EE concerns of 28 member associations including the National Wildlife Federation, League of Women Voters, Audubon, National Science Teachers Association, American Federation of Teachers, and others.

The Western Regional Environmental Education Council is an organization of state level personnel from resources management or education agencies with environmental education responsibilities. Thirteen western states are members of WREEC, and the organization has done quite a bit to coordinate programs on a regional basis. Unfortunately, no similar organization involves the remaining 32 states.

Basic responsibility for public education rests with the individual states. In California, for example, the legislature mandates a curriculum outline and provides funds for public education. The state department of education reviews and approves text materials for use in grades 1-8 and provides program assistance for local school districts and county offices of education. The department also operates a grant program using funds from the sale of personalized license plates.

In California, as in many other states, the Resources Agency is interested in EE and provides program assistance, expertise, materials and other services for the schools. Resource management agencies also do considerable work in the area of public information realizing that any and all programs to conserve resources or control pollution are absolutely dependent upon a supportive public.

Private conservation groups are important in the statewide environmental education picture and are most effective when they keep the need for good programs before the public and urge adequate funding and support. The California Natural Resources Federation, the state affiliate of the National Wildlife Federation, provides this vital service in California.

One of the most important links in the chain from state government into the schools are the 58 county offices of education. In many cases, county offices of education provide curriculum services, audio visual materials, expertise, and other services to the more than 1100 California school districts. The State Department of Education recognizes the importance of the county offices and works very closely with them.

At the local level, we have in California, some 1100 school districts ranging in size from several one-school operations, up to Los Angeles City with its some 700,000 students. Each of these districts has a board of trustees, and their meetings provide an important means of access for citizen input. Those interested in EE should know about school boards and how they work and should keep them aware of the need for good EE programs.

Now that we're at the local school district level, how can you as an informed citizen determine if your district is doing an effective job in the EE field? Here is a check list which will help you find out:

1. Has an official written policy statement been produced and distributed?

2. Does someone in the district have specific responsibility for the EE program?

3. How effective is this person in dealing with other administrators? Teachers? The public?

4. Does the district welcome and encourage community support and participation in the program?

5. Is full use made of community resources, both human and natural?

6. Is an interdisciplinary approach used?

7. Are adequate human and financial resources allocated to the program?

8. Are adequate materials available to teachers? Are they up-to-date and available in adequate quantities?

9. Has the district prepared curriculum guides and other study materials suited to local needs?

10. Does the district provide a resident outdoor school program?

11. Are opportunities provided for field trips and community studies?

12. Is the development and use of school site environmental study areas encouraged?

13. Does the district evaluate its program in terms of its effectiveness with students?

Hopefully, most of the answers will be affirmative.

Now that you have a pretty good idea as to how the system works and how to get an idea as to the quality of the program offered, what can you do to help?

-- Get involved, ask questions, attend meetings, serve on committees.

-- work with others--CNRF and similar--at local state and national levels.

-- Offer expertise:

- Your expertise must relate to the lives of the students you contact. Be able to answer the question, "so what?"

- Expertise is sorely needed for the evaluation of state textbook adoptions.

- Be cost effective. Speaking to one class is a good experience, but this is not an effective use of your time. Working with a group of teachers or administrators who in turn affect students is much more cost effective.

To summarize, Environmental Education of one kind or another, is shaping the future--it's happening right now, and we're all a part of it. You <u>can</u> make a difference if you really <u>want</u> to.

I would like to close with a few lines of a poem written by Noel McInnis and Ilene Wright:

> Earth is a single household, but the household
> is not ours.

We are only visitors in the living room of
those about to follow,
Caretakers of the hospitality and shelter
that our house affords.
Our children, not ourselves are the
earthly household's host,
And we are but their household's privileged
guests.

The title of that poem? "We Are Living in Our Children's House."

Yes, we are living in our children's house, and we can help them learn to take care of it. We must not fail them.