A prerequisite to successful environmental education is major change in the educational system. As a replacement for the manpower training/selection approach, we need education as assistance in child development; as a replacement for the educational bureaucracy, we need a dynamic structure designed for individual and organizational growth and development. For environmental education to be effective in inducing/supporting necessary social change, it must derive its theoretical foundations from a restructuring of the pupil's environment. My own efforts in this area have involved developing an approach to teaching about human behavior and social processes for pupils between the ages of 12-18. It can be briefly characterized as using the classroom, school, local community, and foreign classrooms as one's laboratory. In this process, the teacher and pupils pose questions about man and society. Both classroom situations and data gathering from the community can relate to these questions. This kind of program can have several useful outcomes: 1) shift the direction/basis of inquiry to the student himself; 2) diminish overly simplistic views and stereotypes; 3) expose a wide variety of research methods. In terms of environmental education, the pupil realizes his power and sense of responsibility while developing knowledge and skills for putting them to work. (Author/JLB)
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THE CHILD'S ENVIRONMENT IS THE SCHOOL:
A human behavior approach to environmental education

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I am writing this while in the middle of reading Gunnar Myrdal's book, *Asian Drama: an Inquiry into the Poverty of Nations*. There may seem little relationship between the socio-economic analysis of Southeast Asia's development problems and our current interest in designing and implementing productive programs in environmental education. However, for me, what Myrdal's book has done is to strengthen some of my own convictions. I've started this paper several times and it's now long overdue. The delay resulted from indecision over whether to (1) simply describe an approach to environmental education through a curriculum on human behavior; or (2) advocate the need for widespread change in most educational systems as a necessary prerequisite to environmental education. Myrdal helped push me towards the latter approach. I'll quote from him: "Through our study we have grown more and more convinced of the realism of the hypothesis that often it is not more difficult, but easier, to cause a big change rapidly than a small change gradually." (p. 115) The essential difference between the rapid big change and the gradual small changes is that for the latter one typically tries to change attitudes and hope this will result eventually in changed institutions. The big rapid change necessitates attacking the existing institutions directly.

It is the education system as an institution that needs some redoing as a prerequisite to successful environmental education. Its basic goals of manpower training and selection stand in our way and our student's way. Its large bureaucratic structure, totally emmeshed in the larger bureaucracies of national and local governments stands in our student's way and our way.

We can certainly continue to introduce more and better environmental education into the curriculum without major institutional changes. Or, we can agree that major changes are necessary but it is not our job. However, what to me seems more the situation is that there has already been both a climate created for major educational change and very many single, but individually important, changes. Most of this has happened at university, pre-school and primary levels while much of the environmental education programs seem particularly important and appropriate for secondary levels. Despite the relative slowness
of secondary education personnel to institutionalize new goals and methods, there are already enough indicators of change that one can describe realities instead of fantasies.

The point then is that although I feel quite sure environmental education in most European countries will only be successful when it is an integral part of a much different educational system, we may be able to help achieve the necessary system changes. In this brief paper it is only possible to use labels to indicate what the nature of these changes may be: as a replacement for/manpower training and selection approach we need education as assistance in child development; and, as a replacement for the educational bureaucracy, we need a dynamic structure designed for both individual and organizational growth and development.

Some questions may be in your mind. Is this naive dreaming? Is this really necessary? Is this our job? Can we wait for it to happen? Since such changes may be a long way off and the environmental crisis has already overtaken us, don't we have to deal directly with the crisis now, simply and realistically, by introducing whatever curriculum changes and additions we can manage?

My own answers —— since I feel that Myrdal's hypothesis is also true of the educational system, I don't feel it is dreaming. Since I think we are fooling ourselves and failing our students if we expect environmental education courses to help solve the crisis, I do think the systems change is a necessary prerequisite. (I wish it weren't) Since the educational bureaucracy resists major change mostly by utilizing everyone's time in keeping up with the daily job requirements, it has to be our job too. The amount of time and effort needed for changing the system just can't be found unless everyone in it plus all those concerned about it joins in the effort.

My fear is that we are so pleased with the rapid multiplication of new courses and programs in environmental education that we hide from some realities. We take hope from the technological progress and increased expenditures in pollution control while hoping that in time similar efforts will solve other problems — urban growth and decay, the emotional and social isolation of the nuclear family, overpopulation, hunger, the ease which one group of people or a nation can negate the humanness of a group or nation they are in conflict with, etc., etc.
We will fail if we separate nature and natural resources from the nature of other human lives and human resources. But this makes our task so comprehensive as to be almost totally defeating. Almost?....remember Myrdal's hypothesis.

The difficulty of the task became apparent to me with some recent events in Copenhagen. There had been a large, active involvement of youth in campaigns against automobile pollution within the city. Yet, when the law was recently changed so that at age 15, instead of 16, one could drive a motor-bike, thousands of 15 year-olds abandoned their bicycles and switched to motor-bikes, adding considerably to both the noise and air pollution. No one, least of all the youth, seemed interested in starting a campaign against this pollution.

For environmental education to be effective in inducing or supporting necessary major social changes, I think it will have to derive its theoretical foundations from a restructuring of the pupil's environment. Aside from his home, the critical environment for the child is the school. We can not separate the pupil's willingness to help improve the environment by making personal sacrifices in his own daily life from the totality of his attitudes towards himself, his society and his role and skills in changing society. But this is just what develops, one way or the other, in school. Schools are the only institution of society that young people really know and experience daily. If they come out of it feeling like pawns on society's chessboard, or desiring to be a Bobby Fischer, mastering the existing rules of the game and playing to win, then we probably won't reverse our environmental destruction.

Perhaps we can reverse it if our school systems can be structured so that we assist the child in his development towards an adult that understands something about human nature and socio-economic processes as they relate to the destruction of the environment. He should also feel a sense of individual responsibility for participating in reversing the destruction and he should have learned about and have experience with the difficult skills needed for productive participation in social change.

My own efforts towards this objective have involved developing an approach to teaching about human behavior and social processes for pupils between about 12-13 years of age. This approach can be briefly characterized as using the classroom, school, local
community and classrooms in other countries as one's laboratory. In this process the teacher or pupils pose questions — interesting, controversial, important, unusual or funny questions about man and society. One can then create/situation which provide some active experiences for the pupils that relate in some way to the questions. The pupils can also go out into the community and make observations or gather data related to the questions. As is usual, trying to answer one question often produces ten others, so the process easily becomes continuous.

Behavior of a particular kind can be "produced" in the classroom by using a "game", a simulation exercise or a psychological experiment. The pupils own actions, reactions and feelings can then provide the material for discussion. The teacher's role is one of helping the students step back and look at their own experience, to draw some generalizations or develop concepts and to then see how these may apply to other real-life situations. The school can be used in a similar manner for sociological investigations. For example, we have studied the way different kinds of rumor spread through a school. Various aspects of community social processes can also be studied, either as an observer or as a participant. Pupils can stand near a street crossing where there is a pedestrian stop-light but little traffic and observe and record the behavior of different kinds of pedestrians — waiting or not waiting, patiently or impatiently; relaxed or with conflict and indecision. They may use the data to find out if there is any relationship between the age, sex or dress of the pedestrian and his "red-light" behavior. And, they can exchange their results with a classroom in another country, learning something about international similarities or differences.

This kind of program can have several useful outcomes:

(1) By, in a way, making the student himself the starting point of the subject matter, we can shift the direction or basis of inquiry processes. Instead of the pupil being confronted with a huge body of knowledge, mostly residing in books, which it is his task to find out about, he can begin the inquiry process with his own classroom experiences and the questions raised by these experiences. Then he can go out to the books or to the real world seeking answers — to his questions.

(2) By confronting pupils with the variety and complexity of their own perceptions of and reactions to the same situation, and seeking some understanding of what may cause this complexity.
we can diminish the overly-simplistic views and reactions that pupils often have to human and social affairs, i.e., the good-guys bad-guys, the stereotypes, the emotional labels.

13) Within the classroom one can follow-up this exposure to the complexity of human and social processes with the idea that there are a wide variety of simple and sophisticated research methods for seeking answers to their questions. The pupils and the teacher can develop classroom, school, and international community/projects which use these methods. With these projects and the discussions about them, the pupils can begin to become familiar with and feel part of an important process: i.e., the relationships between data and understanding and between understanding and successful social change processes.

In terms of environmental education, what we may accomplish with this approach is that the pupil not only realizes his power but can begin to have a more useful sense of his responsibility while developing both the knowledge and the skills for putting it all to work as a participant in the social change process.

In the schools, the work of many teachers and social scientists during the past few years lends support, but not hard proof, to these contentions. There is a growing movement for a psychology/sociology curriculum at pre-university levels and much of this is being initiated by the pupils themselves. Next month I will be directing a Unesco-sponsored teacher-training workshop based on the approach I have outlined above. I hope the classroom program that develops from this, in about 10 countries, will permit a sound evaluation of the relevance of an education on human behavior and social processes to environmental education.