The School Media Specialist as Activist

Concern for the quality and future of our environment has brought together representatives from a number of disciplines and interests and has prompted many people and organizations to foster an awareness of the crucial status of Spaceship Earth, to identify emerging patterns that are threatening, and to suggest some of the options yet available. The proliferation of information about the environmental crisis and the promulgation of diverse points of view have resulted in a plethora of materials, if not another form of pollution.

The program of this Institute was launched with a lecture defining the scope of the environmental problem, progressed to the work and publications of various agencies, institutions, and organizations, and proceeded to descriptions of facilities and the services of information centers. Our focus now shifts to creating guidelines for the developing of environmental collections in different kinds of libraries. Our charge is to devise means to cope on the local scene with the resources available and to suggest ways that responsible evaluation and selection of materials can lead to the development of collections which hold promise of being utilized by the community served.

The environmental crisis is a topic both intriguing and disturbing. Many who work with youth are finding that the subject enjoys a universality that spurs communication among people. Since apprehension concerning the problem spans the age spectrum, young people have participated in programs of action not only with their peers, but with others of all ages. The threats of various pollutants to our survival give an urgency to the examination of our environment which unites people along lines not distinguished by age. The public has been alerted to the issues and controversies by the mass media; the many facets of the crisis have been highlighted in books, periodicals, and television programs. Young people have responded with alacrity.

In schools the study of the environment can permeate various aspects of the curriculum and experiences of the students. Concepts and understandings about the environment have been tucked into niches of existing courses of
study. Another approach has been to create new courses, frequently interdisciplinary, with the pivot being the study of the environment. Teachers, students, and administrators who are not constrained by traditional divisions of knowledge seem able to absorb more readily this new input. Organization of schools by departments or grade levels and approved syllabi need not inhibit the study of the environment. People who can transcend existing frameworks must be called upon to assist incorporating environmental studies into the curriculum. One of these persons should be the school media specialist. The media specialist who is conversant about curriculum development, theories of learning, and teaching strategies can draw upon a wealth of resources and materials to support his or her efforts to promote the study of the environment in schools.

In this article the ferment enlivening the field of education today, which has implicit meaning for environmental studies, will be briefly sketched. This presentation will be directed toward delineating the role of school media specialist in evaluating and selecting materials and in stimulating people to utilize media effectively. Environmental studies as opposed to environmental sciences will be used in a conspicuous effort to call attention to the need to interpret broadly this topic in the schools.

THE EDUCATION SCENE

Certain vibrations concerning environmental studies are on the same wavelengths as some of the tremors being created in the education world by the professionals who are raising inquiries about learning processes. Many of the issues regarding ways to improve learning are typified in the current stress on environmental studies. The opportunity is presented to experiment with theoretical concepts about learning at practical levels.

The emphasis of many reports and studies is on facilitating learning for the individual. The slogan now is “education for each,” rather than “education for all.” Teachers are encouraged to find means to permit the student to pursue portions of his study independently. Due regard is given, however, to providing for interactions among students and between student and teacher. Guidance is offered by the teacher, but the student is afforded options to personalize learning. Intrinsic motivation sparked by the student’s interest in an activity seems to transport the learner more easily through his endeavors and to make learning exciting. Recognition that each person has different modes of assimilating information has led us to suspect that one might switch his modes under varying circumstances.

Knowledge is more accurately described as dynamic than static, transitory than permanent; we are constantly forced to absorb new information and revise established facts. Process becomes more important than
content because content has little stability. The ability to inquire skillfully, to solve problems, and to resolve dilemmas will better condition the student for future encounters than the reiteration of current certainties. Even styles of inquiry can become obsolete. The organization of subject matter within courses of study is being scrutinized. The categorical and sequential frames of reference are being realigned. The interrelationship of former classifications of knowledge finds expression in attempts to provide interdisciplinary courses and to develop units around universal themes.

Openness is the new trend in education. Harold Howe, in a lecture given at Yale University, stated that the open classroom is much more than a challenge to old rigidities.

It is an effort to enlist the student in the cause of his own education, to turn the situations he creates for himself and the personal interests he expresses to the purposes of learning. It tries to find in play situations and in activities that come naturally to children opportunities to implant important lessons. It is an attempt to organize the class so that students can learn from each other, to change the teacher’s role from that of performer to that of a guide and a diagnostician of learning problems, and to bring into the class as sources of stimulation to learning anything that interests children from the world outside.¹

The twelfth Herculean task seems to be that of coping with values. The dearest traditions are questioned and challenged. No longer is the weighing of pros and cons limited to adults; children and young people are given practice in making value judgments. The classroom becomes a forum where students can observe that proposals from one segment of the society might not be acceptable to others and that there are reasons for accepting or rejecting certain solutions. Exposure is given to several sides of an issue; experience is gained in the critical evaluation of conflicting value positions. The right of the individual to develop his own value system is championed. Affective learning is linked with cognitive. All of these views of learning mandate new teaching strategies.

Environmental education has been described as education that cannot wait and education which will require new approaches. Mankind has a record of making decisions about use of the environment upon such bases as custom, oversight, economic feasibility, political expedience, social desirability, and religious belief. Wise decisions will of necessity require understanding not only of pure and applied sciences, but also of economics, history, political science, sociology, psychology and the humanities.²

The scope of environmental education is clearly shown in the June 1970 issue of Theory Into Practice, entitled “Toward a More Humane Environment.” The articles concern the natural and artificial relationships between man and his environment, and moral and ethical issues of this relationship. Theological, educational, and legal questions are asked which have implications for educational practices and trends.
Many studies have been made regarding the status of environmental education and many groups have mobilized to insure the study of the environment in the curriculum. The purposes of this paper do not allow for lengthy descriptions of these projects; brief mention of two items will be exemplary of many others. Environmental Education in the Public Schools is a report of the results of a survey conducted during the 1969-70 school year to determine the status of environmental education.\(^3\) Since the study was made when interest was beginning to heighten, the report should be useful in the future for purposes of comparison to determine trends. The National Education Association has several groups concerned with environmental education. Many publications have been prepared and a Task Force on Environmental Education has been appointed. The NEA catalog of publications will provide the necessary information for ordering materials from this organization.

The surface has been but lightly scratched with regard to the excitement of being in the field of education today, and the special meaning environmental studies have to new approaches to learning. In an article in the bulletin of the National Association of Secondary School Principals, George O'Hearn encapsulates many of the points sketched above. He summarizes:

The basic guidelines for environmental education include orientation of school programs toward the future; wider acceptance of problem-focused learning, concern in all areas of the curriculum for the human element—man in society, a pan-discipline approach to learning and decision making, a school program that encourages student initiated learning, and acknowledgment that all education and especially environmental education requires a "whole world" approach to learning—learning for survival.\(^4\)

**EVALUATION AND SELECTION OF MEDIA**

Materials found in school media centers today differ from earlier library holdings in at least three dimensions: (1) supplementary textbooks have been either displaced or augmented by books which offer breadth and depth in their treatment of topics and are intoxicating in their appeal; (2) collections determined by or limited to materials supporting a pedestrian course of study have given way to multifarious assemblages as colossal as life itself; (3) to the collections of books and magazines have been added other media including recordings, films, filmstrips, slides, and transparencies. Media centers across the country could be cited at different stages of this seemingly evolutionary process, and there is little to suggest that trends will be reversed. The emerging of environmental studies serves to substantiate the need for the transformations which have been occurring.

Criteria to assist in the determination of materials to be selected for school collections are exceedingly difficult to fashion. The range of abilities
among students and the levels of their maturation and sophistication, the ever-expanding approaches of teachers to students and to studies, and the leadership of media specialists in promoting diversity, have left few materials to be eliminated. The safest criterion seems to be one which allows for the inclusion of any item for which a use or need can be determined. Financial circumstances impose limitations upon the amount of money to be spent, but have little bearing on the reshaping or re-ordering of criteria. Fewer items are purchased, but the range of materials selected for inclusion has not been constricted.

The American Association of School Librarians in its “Policies and Procedures for Selection of Instructional Materials” has suggested that criteria for selection should reflect the basic objective of the media center—to implement, enrich, and support the educational program of the school. General criteria should be cast in terms of significant descriptors of the subject, integrity of treatment, quality of medium or style, clarity and originality. Specific criteria are determined by the program of the individual school and the needs of the students. The guide provided by AASL further suggests that needs arising from knowledge of the curriculum, knowledge of children and youth, and requests of students, teachers, administrators, and parents will require a wide range of materials for an acceptable level of quality, on all levels of difficulty, with a diversity of appeal, and the presentation of different points of view. Most assuredly those who developed these guidelines are to be commended for their vision and understanding; however, those who attribute an inclusiveness which has few bounds to such terms as “comprehensive” and “curriculum” wonder if there is anything which could not be justified for inclusion in a collection.

In an open society the individual’s right to his opinion, coupled with technology which permits the rapid dissemination of points of view, further complicates the task of selecting materials. The deluge of publications becomes overwhelming. The media specialist who sorts out of this avalanche items for his collection which are factual and rejects those which are biased is, perhaps, making judgments not entirely void of the influence of his own personal views. Furthermore, materials considered to be inferior or slanted can, in the hands of some professionals and students, help to put into perspective the diverse viewpoints about issues.

Bibliographies prepared by subject specialists and standard sources which have been relied upon for recommendations are no longer entirely satisfactory to the media specialist who is building a collection to meet the distinctive needs of an individual school. This is not a denouncement of the bibliographies; the lists continue to be useful, but the reasons for consulting them have altered. Many school collections have grown beyond the number of titles a general source can suggest without becoming unwieldy as a reference.
Bibliographies of the "best books" variety are susceptible to criticism unless the purposes for which the materials are best are carefully delineated. Before lists even roll off the press there seems to be a need for updating, whether the topic relates to ancient history or environmental studies. Exhaustive lists frequently provide a beginning reference, but contain so many materials that culling out items for a particular circumstance becomes difficult. Selective bibliographies and those intended for specific purposes are useful only if a user's intentions are similar.

Thorough evaluation of materials by the media specialist is not so paramount as his envisioning the ways in which materials might be used. The responsibility of the media specialist lies not in deciding which materials are best, but rather in providing materials which will be useful in a variety of instances. Evaluation and selection of materials within budget limitations become arduous for the elastic mind from which circumstances of utilization pour forth. For example, some recent films have been produced primarily to arouse interest and concern; many of these films are open-ended. Were these films judged solely by the amount of factual information contained in x running minutes, they would be rejected. Some teachers will dismiss these films as useless; at the other extreme will be teachers who will use the films as launch pads for many learning experiences. The media specialist must consider the diverse opinions of teachers regarding the usefulness of the films and decide which films are to be selected for the collection. He must be capable of responding to the entire continuum of teaching strategies and of helping each teacher to see the validity of other methods.

**UTILIZATION OF MEDIA**

The media specialist promotes the utilization of media to improve learning. To be of assistance in creating a learning environment for students, the media specialist must have, in addition to his knowledge of media, a knowledge of the goals and objectives of the curriculum and how to work effectively with teachers. To utilize collections fully the media specialist must be able to suggest ways to use materials creatively and be able to pull from the collections or sections of the media center those materials which will prove most satisfactory to the public he serves.

The media specialist continues to respond to requests for specific materials for use in the classroom, but the involvement with the teacher is of an increasingly more intensive nature. At the outset the teacher and media specialist must discuss the scope of the topic and the direction the teacher plans to go with it. Environmental studies provide an excellent example of the need for deliberations between teacher and media specialist before the search for materials begins. How is the teacher interpreting environmental studies? If
one sought a definition from a number of people, the responses would approximate the number of people asked. There would be no merit to placing judgment upon the definitions proposed, nor would there be any need to derive a single definition from all that had been suggested.

The interface between teacher and media specialist regarding scope of the topic is crucial to the success of the search for materials and, when neglected, can make succeeding steps futile. I am reminded of a library science class in which students were to develop responses to a request for materials concerning environmental studies. An important aspect of the assignment was the discussing of definitions of the topic. Before the first group meeting had concluded, the students had divided the search for materials by categories typical of the approach of one who assumes he knows the limits of a topic. When forced to seek further for definitions and interpretations of the subject, the students became aware that they had not explored in even a rudimentary way the possibilities that environmental studies could encompass.

There will be teachers who will prefer and will be satisfied to obtain from the media specialist specific titles as requested. If, however, the media specialist is to be an integral part of the process of curriculum development, he will respond to the request, and then attempt to probe the direction the teacher is taking in order to suggest how the topic could possibly be expanded or brought into sharper focus. Ways must be sought which will enable the teacher to create in his class an arena in which the subject can become exciting to students, which will allow students to explore independently, and which will provide a sense of unity to the various probings of the topic.

The relationship of the teacher and media specialist must be one of mutual exchange which places new demands upon the media specialist. The person of limited knowledge and narrow perception whose expertise lies in finding subject headings in the card catalog cannot thrive as a media specialist. The defining of the topic is not a semantic trick, but a really significant part of the information with which the media specialist will need to fortify himself before gathering materials.

Collections of materials already in the media center have probably not been fully exploited. Our collections and resources could probably be utilized to greater advantage. The November 1972 issue of Educational Leadership features the use of resources at the local level. This theme was selected because many resources, some valued and some neglected, are generally available at the local level. The emphasis of the issue is on the need for alertness in recognizing the hidden value in resources and the need for inventiveness and flexibility in the utilization of resources. Although the resources of a media center are not discussed in the issue, the decision to feature this topic is interesting to the media specialist who must seek to utilize collections creatively. The media specialist must know the resources in his collections—must know more than
the backs of books—in order to connect the student or teacher with the item most germane to his request. To know thoroughly and exhaustively the contents of every piece of material is impossible, but the media specialist must maintain a perspective which makes him or her, when confronted with a request for materials, think immediately of possibilities beyond a few call numbers, subject headings, or titles.

The media specialist should not peg or condemn materials too quickly to a specific audience. Less difficult materials can be used by secondary school students in some of their projects in elementary schools. The secondary student helping the elementary student might be the advanced learner who is taking on a special project or might be the less advanced pupil who is, himself, gaining knowledge through preparing a presentation for the younger person. The same materials might contain information which would help to clarify points a high school student is trying to present to adults of the community. While cover-to-cover utilization of some materials might prove difficult or taxing, sections of items can be interpreted by the teacher for the student or be used independently by the student because of their brevity or format. Quite often then, the utilization of materials is dependent upon the creative thoughts of the media specialist. It is the role of the media specialist to help and inspire students and teachers to see many uses for any item.

The ability to suggest creative uses of media will also enable the media specialist to respond immediately to requests. Although materials are constantly added to collections, almost everyday a request is received for something which is not a part of the collection. If the media specialist can think of substitutions which might even please the teacher or student more than the item originally requested, new service links will be established which will soon be used by the patron again. Fuel for reacting more positively to daily requests can be found in collections characterized as having breadth and diversity.

The media specialist is better described as a coordinator of resources than a dispenser of materials. An important resource in any school is the faculty. The media specialist needs to draw on the abilities and talents of the faculty. The science teacher is usually more knowledgeable about scientific matters than the media specialist. The media specialist, however, brings certain qualifications to his position which enable him or her to converse intelligently with the science teacher and to formulate comments and to pose questions which will be helpful in the selection and utilization of materials. It is not a new concept to involve teachers in the evaluation and selection of materials; this has been encouraged for many years. The media specialist, however, is adding a new dimension to his or her role of coordinator of resources when he or she becomes more aggressive and concerned about the utilization made of media.
A specific example might show how a productive relationship between media specialist and teacher can create such a lively exchange that it is difficult to determine where media services end and teaching strategies begin. Several of the media specialists in my high school have assisted a teacher of environmental science; the teacher has been most generous in relaying appreciation to the media staff, and the media staff benefits from the examples the teacher provides of the creative utilization of materials. Students are given the chance to extract information from media and have been inspired by their contacts with media to create their own materials. From the variety of activities that occur in the environmental science classes, Edward Radatz has related to me his use of films in a unit about water pollution. Each film was produced by a group representing diverse interests in water pollution. The students learned of the viewpoints of these groups through the films. The teacher reported that the films prepared students for discussions and the probing of vested interests, and that the films were also available for review.

_The River Must Live_, a film prepared by the oil industry, is a photographic essay of the causes, effects, and solutions to water pollution. It's _Your Decision—Clean Water_ was produced by the Soap and Detergent Association and the League of Women Voters and defines water management problems incurred by increases in population and production. _Threatened Treasures_, produced by a conservation group, portrays sources of water pollution and the effects on fish and people. _The Water Famine_, by the Columbia Broadcasting Company, is a documentary study of worldwide water problems. _The Choice is Ours_ outlines some of the needs and problems in the Upper Mississippi River Basin. All of these films are available at no charge from the EPA. Through these films the students were exposed to the points of view of government, industry, and concerned groups. Students were able to make deductions about the worldwide problem of water pollution and were able to find reflections and ramifications of these concerns in national and local problems. Out of this work with commercially prepared films, students were inspired to create their own 8mm film depicting the problems of water pollution in the local area. A recent development growing out of this study in environmental classes is the combining of classes in biology, art, and photography for the purpose of exploring environmental issues.

Another important resource for the media specialist is the student body. Students at the Oak Park and River Forest High School have been influential in bringing environmental studies into the curriculum. My purpose in briefly revealing their activities is to encourage each media specialist to seek the assistance of students and become aware of the possibilities lying dormant in his or her own school. A few students, upon return from a workshop of a state university, requested the opportunity to plan a week-long observance beginning with Earth Day in April 1970.
The impetus for the program and the major responsibilities for the organization of the events fell to the students, who received the support of the administration and faculty. Lectures were scheduled for the week, articles appeared in newspapers, posters and displays were in evidence, and films were made available to classes. As a result of the activities of the week, many students and teachers became aware of the need for environmental education in the school and community. A course entitled Earth Science and provision for discussion of environmental studies within other classes grew out of suggestions made to the board of education concerning the need to develop courses in environmental sciences.

During the summer, a field biology class took trips to nature areas, industrial complexes, municipal sewage plants and other nearby places. A pollution control center was set up in the school by the students. Books, pamphlets, periodicals, and audiovisual materials are available in the center. Citizens of the communities can rely on the telephone service of the center for information about environmental subjects. The students work with local, state, and national groups in gathering and disseminating information. High school students have gone into the elementary schools to help provide environmental courses and special units. The programs for the elementary schools center on basic ecological concepts and guidelines for children to follow both in school and at home in order to increase their environmental awareness. Speakers have been provided for local organizations and to groups outside of the state. A recycling program, a campaign to save the local conservatory, and local clean-up projects have been vigorously pursued by the students. A file of pending legislation on state and federal levels related to the environment is kept at the pollution control center.

The students have concentrated on being informed and informing others, not hesitating to express their views to elected officials and other influential people. They have cooperated with other high schools, organizations, and governmental agencies; delegates and representatives are sent to important meetings concerning state and federal conservation policies. The Presidential Environmental Merit Award was granted in recognition of their leadership. John Rudzinski, student coordinator of the Pollution Control Center, has been most helpful to me in preparing this paper. This student activism has contributed greatly to creating an awareness of the environmental crisis among students, teachers, and members of the community. A more complete report of the activities of these students is available upon request.10

What are the implications of this student venture to media specialists in my district or in other schools? The media specialist can survey his situation to see where seeds of interest about environmental studies might be germinating. The media specialist can find ways to be supportive and to promote the interest in environmental studies which students have. An area in the media center might be allocated to students who desire to set up and organize
materials and services about environmental concerns. If interest is developing in another sector of the school, the media specialist should indicate his willingness to help people build collections, find materials, and devise ways of communicating information to all quarters of the school. The media specialist can initiate, draw out, or support an interest in environmental studies among students, and can turn to students for assistance in this endeavor.

Some of the resources needed by teachers and students will not be available in the media center of the school. Frequently it becomes necessary to seek the assistance of other agencies, to cooperate with other libraries, and to turn to other mass media. The media center becomes information central for the client as opposed to a location where materials are housed. The school media center should be a point of access to other resources for students and teachers. The media specialist should know how and where to obtain needed materials easily and efficiently. The responsibility for making connections with other agencies or resources does not end with the identification of the sources of information. The media specialist should follow through on requests to insure that students and teachers can obtain the materials desired with little difficulty. Additionally, the media specialist’s knowledge of the resources of other agencies and of the collections in other libraries enables him or her to develop his own collection more effectively, to avoid unnecessary duplication, and to allow other agencies and librarians to use the resources of the school media center. Thus, there is cooperation in utilization and development of collections.

The media specialist has tremendous responsibilities in promoting the effective utilization of materials. His or her role incorporates the challenge of igniting the interest of teachers and students to use a variety of media to meet a quantity of needs. Mention has been made of ways the media specialist responds to requests which come to him and of his or her efforts to alert faculty and students to media which will support existing projects. The media specialist can become the communications pillar through which ideas are exchanged and transmitted. The successful project of one person can be mentioned by the media specialist to others who extract from the project those elements which can be adapted to other enterprises. This exchange has twofold benefits: positive reinforcement concerning his work is given to one person; other people obtain suggestions from which new ideas can be generated.

The ambitious media specialist desires an intense involvement with learning processes and teaching strategies. He possesses an urgency and exudes an aggressiveness which says we have not begun to explore the potential of media for the student. The media specialist must be inspiring to teachers and students and possess a resiliency which enables him or her to accept criticism, apathy, or rejection. Increased, effective utilization of media in schools is
going to be dependent upon his or her initiative and enthusiasm. If this challenge is not accepted, the selection of materials becomes the mundane task of stocking shelves.

**RESOURCES FOR SCHOOLS**

I cannot prepare either a definitive bibliography of materials related to environmental studies or a selective bibliography. Furthermore, such lists would not really support some of the points I have attempted to make in this paper. A few materials will be described in this section which might be useful to some schools. The items selected were chosen because they are somewhat representative of the diversity of materials currently on a flooded market. The materials have not been subjected to evaluative criteria. The problem facing the media specialist will be that of selecting from the many materials those which can be utilized in his or her own school. The quality of the materials which one purchases will vary. Some sources mentioned here and many sources not mentioned, can be used to lead the media specialist to materials useful for environmental studies.

The *Index to Ecology*, produced by the National Information Center for Education Media, contains over 7,000 titles of nonbook media including filmstrips, 8mm and 16mm films, records, audio tapes, video tapes, and transparencies. The term ecology is defined broadly and covers topics ranging from automation to habitations to water supply. This compilation of materials is not meant to be evaluative, but is useful as a listing to lead one to the many nonbook materials about ecology which have been produced. Bibliographic information includes the description of the format of the item, year of release, and LC card number. Brief annotations sufficiently describe the items for the purposes of this list. Appropriateness of the materials for age levels from preschool through adult, including professional use, is indicated. The index has further utility, a usefulness not necessarily intended by the producer: for the media specialist in a quandary concerning how to develop definitions of the topic, and how to suggest to teachers ways to let students further investigate environmental studies, a perusal of the subject categories and scanning of the pages of available materials should provide encouragement to those who are unsure about channels through which this topic could be explored.

The AAAS has recently published the third edition of its list of science books for children. In 1970 the third edition of *The AAAS Science Book List* appeared. Science and mathematics books for secondary schools are suggested in this annotated bibliography. Both sources are invaluable for locating books about science for school media centers. The broad scope of science is recognized and titles related to environmental sciences can be found throughout the Dewey classifications used in the list.
The October 1971 issue of *Scholastic Teacher* contains a special feature section entitled, "Teacher's Survival Guide to Environmental Education Resources." The materials included are aimed toward, but not limited to, students in junior and senior high schools. Each entry is annotated and for nonbook materials, sufficient information is given, when appropriate, for ordering, previewing, or renting. There are four parts to this feature section: multi-media, paperbacks, films, and booklets. The materials in each category are selected and reviewed by panels composed of professional educators. For each category criteria for inclusion are supplied. In view of our concern regarding criteria, it seems pertinent to mention some of them briefly. Although some of the statements are reminiscent of conventional criteria, others are, perhaps, a reflection of the times and of the current interest in the topic. The twenty-four entries in the multi-media section include slides, games, filmstrips, and audio recordings which had been rated through a questionnaire in regard to such matters as "content accuracy, attractiveness, and facility of use by teachers and students. Several questions concerned the degree to which materials involved students in making judgments and acting upon their convictions about the environment. A high rating was given to materials which encouraged meaningful student activity."

In the paperback section, thirty-nine titles were included which had stood the tests of "content accuracy, readability, and appropriateness for junior-senior high school curricula." The films section lists sixty-four entries including different types of film ranging from animated to quasi-documentary. Among the criteria is one question which incorporates terminology of the day, "Does the film represent both the cognitive and affective aspects of environmental awareness?"

Siehl identified significant contributions to the literature related to the environmental crisis in *Library Journal* and updated his findings in a subsequent issue. Although the articles are not specifically intended for the school audience, the titles mentioned would be useful to senior high school students and elementary school teachers. The suggestions in the earlier article are particularly valuable for picking up older publications which will, perhaps, find a better reception today. Some government publications and scholarly works are cited; titles useful in gathering information for the high school debate topic of 1970-1971 are also mentioned. For younger people an article by Heylman mentions juvenile books about ecology, conservation, and pollution including fiction titles published up to 1970.

Two periodicals which should regularly be checked by the media specialist for articles to suggest to teachers, or for materials to be included in the collections, are *The Science Teacher* and *Science and Children*, both published by National Science Teachers Association. Mention will be made of only a few articles; the media specialist will find many more which could be
helpful. The October 1971 issue of *The Science Teacher* provides an example of the type of assistance one can receive from this journal. An article by Samples describes a project in Boulder, Colorado, which has been funded by the National Science Foundation to focus on self-awareness and the environment. Another article entitled “Environmental Investigations—Getting Help from Uncle Sam” is particularly well-organized and should help the teacher and media specialist to sort out the various governmental agencies which offer publications and conduct activities regarding the environment. Since many departments and bureaus within the departments gather and disseminate information about the present crisis, the listing should be quite valuable. The usefulness of the article will decline with the passage of time because many of the pamphlets and brochures will undoubtedly be superseded or become out-of-print. Another contribution of this issue of *The Science Teacher* is the description of an environmental project for high school students entitled, “Survival City,” for which students were challenged to design and construct a habitat in which man can survive as a species. A recent issue of *The Science Teacher* continues to carry articles useful to environmental studies in schools. The October 1972 issue includes an article about water management, a report of a high school project, a survey of the current status of environmental education, and description of a pollution game. Books and audio-visual aids are also reviewed.

The *American Biology Teacher* usually carries articles of significance to environmental studies. A recent issue reported a project developed for biology teachers and a study at Purdue University concerning water in the city ecosystem.

*Media and Methods* is enthusiastically used by a number of English teachers. Its scope and appeal, however, enable it to enjoy a much larger audience. The media specialist can find ways to incorporate environmental studies into the program of the English department. The article “We Are What We Throw Away,” concludes with seven “eco-books” of interest to the English Teacher. Schrank, in his list of materials, grouped films into two sections. One section contained the films he considered to be most creative and most significant for use in the high school; the other section listed films of value which are primarily useful as information providers. Paperbacks, periodicals, films, filmstrips, transparencies, and posters are suggested by Schrank, but his list of musical recordings about ecology adds a new dimension to the media collection. Damio’s “Ecology Bookology” is a spritely list of paperbacks which by now are probably in most high school collections. Four stars are awarded to a title which is “as lovely as a tree.” Books about air pollution are mentioned under “Save Your Breath: I Shot an Arrow into the Air and It Stuck.”
Periodicals which have devoted several articles or feature sections of certain issues to environmental studies include:

- *Childhood Education*, January 1971
- *Compact*, June 1971
- *Educational Product Report*, March/April 1971
- *Grade Teacher*, October 1970
- *Instructor*, January 1971
- *Paperbound Books in Print*, March 1970
- *Social Education*, January 1971
- *Today's Education*, December 1970

This list is far from comprehensive, but is indicative of the breadth of interest in the topic particularly in journals other than those of science education.

Mention of a few articles must suffice to show how the study of the environment has infiltrated many areas of the curriculum. The diversity of the articles can be illustrated by citing two articles. Chambers and VanAssen suggest the study of ecology through children's literature, and Figurski encourages teachers of industrial arts to assume key roles in the interdisciplinary ventures currently developing. The list of materials in the latter article is particularly useful for the references to resources available from industry.

Articles concerning environmental education have appeared in many journals of the education profession. There are probably only a handful of periodicals which have remained immune to some aspect of environmental studies. *Education Index* and *Current Index to Journals in Education* should be checked to locate references about the environment. Informative articles, lists of resources, bibliographies, and reports of action projects are to be found in the literature of the profession.

Some magazines which can be counted on to carry news about the environment and, therefore, should be checked regularly are: *Audubon, Conservationist, Environment, National Parks & Conservation Magazine, National Wildlife, Natural History, Parks & Recreation, Science*, and *Science News*. Titles of magazines which feature or tend to include information about the environment can be located in the standard sources which classify periodicals by subject areas.

To stress the diversity of materials available, I will enumerate five important sources:

1. *Selected U.S. Government Publications*, issued twice monthly by the Superintendent of Documents, provides the least painful way to keep up with the many publications of the government useful to schools. A recent issue announced the new conservation yearbook and listed several previous yearbooks.

2. The Center for Cassette Studies, Inc., offers audio recordings of speeches and discussions regarding the environment.
3. R. R. Bowker Co. is attempting to provide sorely needed reviews of nonprint media in *Library Journal/School Library Journal Previews*.

4. ERIC Information Analysis Center for Science and Mathematics Education has undergone a comprehensive acquisitions and dissemination program under the direction of a special coordinator for environmental education.

5. The sound-slide program entitled *Man and His Environment* reminds us that there is an approach to environmental studies through the humanities.  

REFERENCES


10. Write to: Pollution Control Center, Oak Park and River Forest High School, 201 North Scoville Avenue, Oak Park, Illinois 60302.


15. Ibid., p. 34.
16. Ibid., p. 38.
34. The Center for Cassette Studies, Inc., 8110 Webb Avenue, North Hollywood, California 91605.