DOCUMENT RESUME

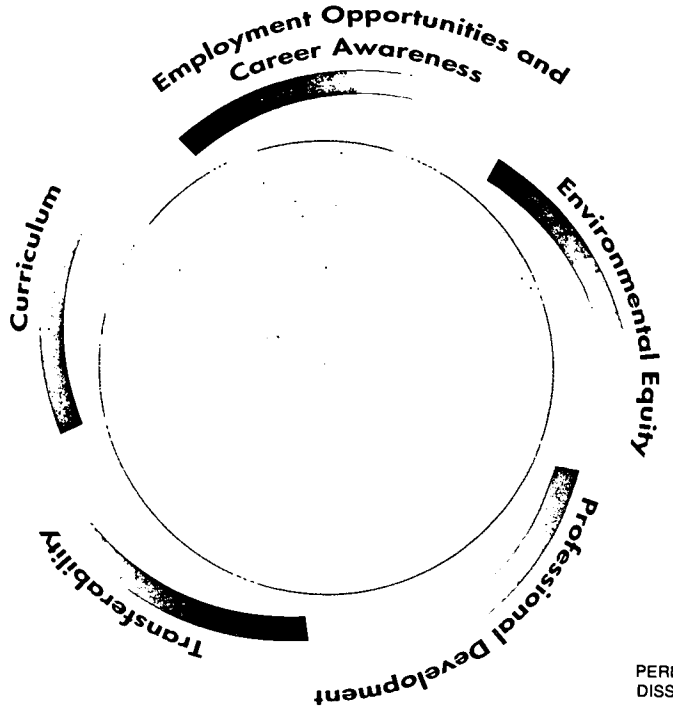
ED 430 797 SE 062 579

TITLE	Critical Issues in K-12 Environmental Education.
INSTITUTION	Advanced Tech. Environmental Education Center, Bettendorf, IA.
SPONS AGENCY	National Science Foundation, Arlington, VA.
PUB DATE	1998-00-00
NOTE	33p.
AVAILABLE FROM	Advanced Technology Environmental Education Center, 500 Belmont Road, Bettendorf, IA 57222; Web site: http://www.ateec.org
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Curriculum Development; Educational Change; Educational Improvement; Elementary Secondary Education; *Environmental Education; Equal Education; Science Instruction; Teaching Methods
IDENTIFIERS	Environmental Education Centers; Environmental Protection Agency; Morgan State University MD

ABSTRACT

This document reviews the critical issues in K-12 environmental education discussed at the Environmental Protection Agency (EPA)/Morgan State University summer institute for kindergarten through grade 12 educators. Areas reviewed included curriculum, employment opportunities and career awareness, environmental equity, professional development, and transferability. Participants were assigned to small working groups of six to eight teachers with one group facilitator. Each group concentrated on one category. Methods used included brain storming and affinity diagraming to develop critical issues for each category. Each group gave a brief presentation of their topic to the other participants at the end. (CCM)

CRITICAL ISSUES IN K-12 ENVIRONMENTAL EDUCATION



CRITICAL ISSUES IN K-12 ENVIRONMENTAL EDUCATION

This project was supported, in part, by the National Science Foundation
Opinions expressed are those of the authors and not necessarily those of the Foundation

Critical Issues in K-12 Environmental Education

Table of Contents

Developed by Advanced Technology Environmental Education Center (ATEEC),
Hazardous Materials Training and Research Institute (HMTRI), and
Eastern Iowa Community College District (EICCD):

Kirk Barkdoll, Dean of Applied Technologies, EICCD
Melonee Docherty, Instructional Designer, HMTRI and ATEEC
Steve Fenton, Associate Director, HMTRI and ATEEC
Dr. Ellen Kabat, Director, ATEEC
Mike Senew, Staff Associate, HMTRI

Notes:

INTRODUCTION

Advanced Technology Environmental Education Center

The Advanced Technology Environmental Education Center (ATEEC) was initially funded by the National Science Foundation in 1994. The mission of the Center is to advance environmental technology education through curriculum development, professional development, and program improvement in the nation's community colleges and secondary schools. To assist in accomplishing this mission, ATEEC has provided numerous faculty development opportunities. The ATEEC Summer Fellows Institute for community college and secondary school faculty is an example of one such opportunity. This is a two-week annual event held at the University of Northern Iowa.

ATEEC has also hosted national forums which have focused on issues relating to environmental technology education. One such forum resulted in the document, "Partnering to Build a Quality Workforce: Critical Issues in Environmental Technology Education at Two-Year Colleges."

Teacher Institute

Since 1993, Morgan State University (MSU), located in Baltimore, Maryland has offered a summer institute for kindergarten through grade 12 (K-12) educators. The Teacher Institute is sponsored by the U.S. Environmental Protection Agency (EPA) Office of Solid Waste and Emergency Response through a cooperative agreement between MSU and EPA. The Institute provides a forum for teachers located in National Priority List (NPL) communities, and communities having sites associated with CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) and RCRA (Resource Conservation and Recovery Act). The Institute's goal has been to design new educational tools that adequately and accurately present issues of concern related to environmental restoration and protection of our communities.

Critical Issues Project

In 1996, ATEEC staff gave presentations at the MSU/EPA Teacher Institute on issues of environmental technology resources and school-to-work initiatives. In 1997, ATEEC again visited the Institute, this time to build on the knowledge gathered in the initial document on two-year college environmental education critical issues by conducting a mini-workshop which focused on the critical issues in K-12 environmental education.

K-12 CRITICAL ISSUES

The EPA/MSU Teacher Institute's mini-workshop on critical issues in K-12 environmental education was facilitated on July 11, 1997 as a small groups activity by representatives from ATEEC, HMTRI, and Scott Community College. The workshop was modeled on the ATEEC critical issues forum and resulting report (sponsored by the National Science Foundation) dealing with environmental education critical issues in two-year colleges.

K-12 Tie-In to Critical Issues in Environmental Education at Two-Year Colleges

Prior to the K-12 workshop, the ATEEC Fellows were surveyed as to their views on critical issues in K-12 environmental education. The categories selected for the K-12 mini-workshop– curriculum, employment opportunity and career awareness, environmental equity, professional development, and transferability–were then adapted from the ATEEC report, "Partnering to Build a Quality Workforce: Critical Issues in Environmental Technology Education at Two-Year Colleges." ATEEC's goal is to ascertain the similarities and differences in critical issues between K-12 and post-secondary levels of environmental
education, and to potentially cross-validate the results.

Brainstorming and affinity diagramming

Participants in the mini-workshop (page 27) were assigned to small workgroups of six to eight teachers with one group facilitator, and each concentrated on a different overall category as mentioned above. (Note: Particular attention was given to ensuring that each workgroup contained a diverse representation of teachers for each category, using geographical area, grade level of teaching, gender, etc.) The methods used included brainstorming and affinity diagramming to develop critical issues for each category. The resulting information was refined and finalized by participants. Each workgroup then gave a brief presentation of their topic to all participants. The data collected from the workgroups was organized by facilitators in a draft document and sent to all mini-workshop participants for review. Comments were incorporated and the final version of the document is presented on the following pages.

Similarities in critical issues for K-12 and 2-year colleges

An interesting similarity of critical issues between K-12 and two-year college educators emerged from these reports, including:

- Unclear definition and lack of standardization of environmental terms and curricula. (Note: The MSU Institute participants were excited to learn that ATEEC has begun to address this issue with the development of the recent "Defining Environmental Technology" report.)
- The need for a more widespread environmental literacy in the country.
- Interdisciplinary and multi-grade coordination of environmental curriculum.
- Lack of information about real world environmental careers in environmental curriculum. (Note: Mini-workshop participants were referred to ATEEC's "Defining Environmental Technology" report for a chart on environmental technology occupational categories and titles.)
- Integration of environmental equity issues within environmental curriculum.
- Sharing of environmental education resources and support between educational institutions, business/industry, and community.
- Insufficient communication and sharing of knowledge between instructors at the same school and at different schools.
- Resistance to ensuring that competency-based environmental curriculum is established at each grade level.

"Defining Environmental Technology" report

Critical issues at elementary and secondary levels

The most striking critical issues for K-12 educators (which were not as strongly emphasized at the post-secondary level) were the lack of:

- Funding for environmental programs and activities,
- Funding for teachers' professional development, and
- Administrative commitment and support for environmental education.

Following is the full text of the critical issues and recommendations that address the concerns of teachers in K-12 environmental education. The information is not presented in any particular order of priority.

Notes:

WORKGROUP REPORTS

CURRICULUM

Develop standardized environmental definitions.

ISSUE: Environmental terms and curricula are not clearly defined and standardized.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Develop a methodology to achieve and use nationally standardized environmental definitions (e.g., environment, ecology, ecosystem) and curricula (e.g., wildlife management, resource conservation, pollution prevention, water quality, air quality, population control, waste management) appropriate to each grade level. Ensure that business/industry, government, and community entities have input, as well as academia.

Teacher involvement with curriculum and school budget

ISSUE: There is a lack of funding for environmental curriculum.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Propose that an environmental curriculum, applicable to the appropriate grade level, be added to the institution's budget as soon as possible, and plan accordingly.
- Develop a fundraising plan to involve local businesses and government agencies.

Interdisciplinary teaching methods and programs

ISSUE: Faculty/staff lack time to plan for and implement interdisciplinary and multi-grade coordination of environmental curriculum.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Propose that funding for interdisciplinary integration of environmental curriculum be added to the institution's budget as soon as possible, and plan accordingly.
- Establish interdisciplinary team teaching projects.

ISSUE: Environmental curriculum does not always deal with environmental equity issues.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Educate faculty to incorporate environmental equity issues into environmental curriculum.

Student and faculty exposure to environmental careers

ISSUE: There is a lack of information about real-world environmental careers in environmental curriculum.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Incorporate practical applications of skills into environmental curriculum.
- Introduce students to non-traditional, experiential learning (e.g., field trips, job shadowing, career fairs, neighborhood/national surveys, media role models).

Information-sharing and partnerships

ISSUE: Educational institutions and the community need to share information more often.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Incorporate community projects as learning activities within the environmental curriculum.
- Inform the community as to what environmental education exists, and the current and future benefits to be derived from that education.
- Form a partnership with business, government (such as the local job service office), and educational institutions to assess the needs of the community for environmental jobs and to provide potential workers with the capabilities to fulfill those needs.

Notes:

EMPLOYMENT OPPORTUNITIES & CAREER AWARENESS

Create more positive perceptions of environmental careers

ISSUE: Students are unaware of, or have a negative perception of, careers in the environmental field. This may be due to a variety of factors, including: 1) fear of the perceived difficulty of math, science, and technology (e.g., environmental studies); 2) unclear definitions of types of environmental workers (i.e., scientist, technician, and technologist) and jobs; 3) lack of exposure to environmental worker role models (in the family and the community); and 4) lack of applicable reference material and guidance.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Integrate math and science skills into other disciplines whenever possible.
- Develop and use math and science learning activities that are fun and relevant to the students.
- Use career fairs to disseminate definitions of environmental work, and to ensure that students recognize that a career can result from their environmental education.
- Introduce students to non-traditional, experiential learning (e.g., field trips, job shadowing, neighborhood surveys, role models).
- Encourage guidance counselors and faculty to learn more about environmental careers, and to stay up-to-date in this area.
- Keep reference materials on environmental careers in a centralized location (e.g., guidance counseling office, library).
- Disseminate above information to parents and encourage parents to become involved in the students' career exploration.

Community environmental education

ISSUE: People in the community sometimes have a negative perception of the environmental field. This may be due to a variety of factors, including: 1) a lack of trust in, and/or feelings of being manipulated/exploited by, government agencies (e.g., EPA); 2) apathy about environmental concerns; 3) the perception that business, industry, and/or government are hypocritical about environmental concerns; 4) a lack of active participation in environmental concerns; and 5) fear of perceived health hazards in the environmental field.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Initiate community environmental forums, to include citizens, government, business, and education. Make sure to get the media involved whenever possible.
- Form community environmental decisionmaking partnerships with leaders of the community, business, government, and education.
- Promote local hiring for environmental jobs.
- Initiate community training concerning OSHA's "Right- to-Know" regulations.

ISSUE: Environmental careers are often perceived as low paying, unglamorous, and unimportant.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Provide environmental career information resources to students through career fairs, guest speakers, and field trips.

Math, science, and technology skills necessary in the environmental field

ISSUE: There is little concerted effort to introduce quality education, or to improve the quality of existing education, in environmental areas. This may be due to a variety of factors, including: 1) inadequate funding; 2) poor curriculum relating the environmental field to math, science, and technology skills; 3) lack of rural exposure to environmental issues; 4) lack of appropriate mentors; and 5) a tendency to stereotype (on the basis of gender, race, religion, ethnicity, etc.) who is capable of entering the field.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Integrate appropriate math, science, and technology skills into environmental curriculum. Make sure the student understands the correlation between these skills and their practical job applications.
- Introduce students to field learning (e.g., job shadowing, internships, field trips) as well as classroom learning.
- Ensure that all learning activities (e.g., textbooks, guest speakers, field trips, internships) promote nonstereotypical workers in the environmental field. Guidance counselors and faculty must actively promote the consideration of all types of career choices by all types of students.

Notes:

ENVIRONMENTAL EQUITY

ISSUE: Schools must be aware of their potential to positively impact environmental equity through education and awareness training and community activities.

RECOMMENDATIONS:

K - 12 educational institutions should:

Awareness training

- Recognize the importance of education to the issue of environmental equity, and to introduce and/or improve basic environmental curriculum in their programs.

- Recognize that environmental equity can only be achieved through the teamwork of all aspects of a community (e.g., education, business/industry, government, and especially individual community members).

Community activities

- Provide a forum (e.g., workshops, guest speakers, public meetings) to promote awareness of and education on local environmental equity issues, to parents and community members as well as students and instructors.

Teamwork

- Provide for local/regional teacher-sharing programs, to disseminate environmental equity information; particularly in larger cities with diverse populations.

- Promote environmental career awareness for economically disadvantaged areas.

- Ensure that adequate resources of basic materials/supplies are available for environmental education, especially in schools located in economically disadvantaged communities.

Dissemination of information

- Provide information on specific topics (e.g., health hazards, air/water quality) that concern local communities.

The U.S. educational system should:

- Ensure that the same quality education is provided throughout the nation.

ISSUE: Community groups and members must be made aware of their potential to positively impact environmental equity through community environmental awareness and activities.

RECOMMENDATIONS:

Focus on local issues

K - 12 educational institutions should:

- Focus environmental curriculum in the schools on applicable local community concerns (e.g., air/water pollution, landfills, wildlife management) and cultural variables, making sure to involve the community in these decisions (e.g., through an advisory board).

- Apprise community leaders and members of the advantages in community environmental education and cooperation on environmental issues.

Partnerships in education, community, business

- Encourage community organizations to partner with educators and business/industry leaders for local job internship, training, and hiring programs.

- Encourage community organizations to sponsor environmental activities for local problem areas (to promote pride in the community).

ISSUE: Business and industry must be made aware of their potential to positively impact environmental equity through community environmental awareness and activities.

RECOMMENDATIONS:

K - 12 educational institutions should:

Focus on local industry

- Focus environmental curriculum in the schools on applicable local industries (e.g., farming, fishing, hazardous materials handling, mining, remediation), making sure to involve business and industry in these decisions (e.g., through an advisory board).

- Apprise business/industry of the advantages in community environmental education and cooperation on environmental issues.

Community cooperation

- Encourage business/industry to partner with educators and community leaders for local job internship, training, hiring programs, and adopt-a-school programs.

- Encourage business/industry to sponsor environmental activities for local problem areas.

ISSUE: Local government must be reminded of their responsibility to positively impact environmental equity through community environmental education, awareness, and regulation.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Ensure that environmental curriculum in the schools deals with applicable local governmental issues (e.g., EPA air/water quality levels, landfill regulations) and cultural variables, making sure to involve the government in these decisions (e.g., through an advisory board).

Equity in community services

- Apprise local government of the advantages in community environmental education and cooperation on environmental issues.
- Encourage local government to partner with educators, business/industry, and community leaders for local job internship, training, and hiring programs.
- Encourage local government to sponsor environmental activities for local problem areas (to promote pride in the community).
- Ensure that local government fulfills responsibility to ensure that all community neighborhoods receive equal civil services (e.g., recycling programs, garbage collection, water rights, emergency response protection).
- Ensure that local government is coordinating with and receiving cooperation from state and national governments on environmental programs.

Individuals can make a difference

ISSUE: Individuals must be made aware of their potential to positively impact environmental equity through environmental awareness and activities.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Ensure that education is available for community members to learn about the individual's impact on the environment and daily activities that can make a difference (e.g., recycling, home/yard/neighborhood cleanup).

PROFESSIONAL DEVELOPMENT

Budget for professional development

Flexibility of budget

ISSUE: Funding is insufficient for faculty and student professional development.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Propose that a specific item for professional development be added to the institution's budget as soon as possible, and plan accordingly.
- Allow for more budget flexibility, to allow instructors to take advantage of development opportunities as they arise.
- Explore the possibility of various grant funding for professional development.
- Allow for instructor/departmental input on budgetary allocations for professional development.
- Streamline the application process for professional development funding for greater efficiency.

Time constraints

ISSUE: Insufficient time is allotted for professional development.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Consider faculty time needs when making funding allocations for professional development.

ISSUE: There are insufficient resources/materials for student professional development.

RECOMMENDATIONS:

K - 12 educational institutions should:

Scarcity of resources and materials

- Allocate funding and time for student professional development activities, such as field trips, site visits, guest speakers, etc.
- Solicit assistance for student professional development from community resources, such as public works departments, mayor's office, local EPA, etc.
- Include environmental curriculum materials (e.g., textbooks, videos, handouts, Internet access, journal subscriptions, science experiment supplies) in school budgets.

Resource material centers for faculty and students

- Establish resource material centers for faculty and students in the environmental field.

ISSUE: Environmental education needs more support from and involvement with school administration, community, business/industry, and parents.

RECOMMENDATIONS:

K - 12 educational institutions should:

Note: See similar issue under "Curriculum."

School-to-school program partnerships

ISSUE: There is insufficient communication and sharing of knowledge between instructors at the same school and at different schools.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Form environmental program partnerships with other schools in order to maximize available knowledge and resources.

Teacher-sharing programs

- Institute district and national forums of environmental educators for the purpose of sharing ideas and resources.
- Enhance the professional development of both students and faculty through teacher-sharing programs, which would disseminate both knowledge and teaching skills.

ISSUE: Educators' (administration and faculty) attitudes need to become more flexible in order to deliver more creative and efficient environmental education.

RECOMMENDATIONS:

K - 12 educational institutions should:

Faculty training availability

- Ensure faculty participation in professional development activities in order to keep up with new developments in their field and related fields, and incorporate this learning in their curriculum.
- Promote additional faculty training in instructional techniques in order to facilitate integration of environmental education into other disciplines.
- Improve administrative procedures and promote faculty development to avoid low teacher morale and apathy.

Team-building skills

- Develop more team-building skills for administrators and faculty in order to most efficiently deliver integrated environmental education (e.g., TQM, team teaching).
- Use an incentive program to promote professional development.

ISSUE: Content-specific professional development isn't encouraged as often as generic professional development.

RECOMMENDATIONS:

Faculty input concerning in-service training

K - 12 educational institutions should:

- Encourage faculty input for the in-service training content and schedule.
- Develop programs for faculty/student internships, faculty memberships in professional field organizations, student job-shadowing, school-to-career partnerships, etc.

TRANSFERABILITY

Improvement needed in environmental literacy

Educational organizations taking the lead in developing national competency-based standards

ISSUE: There needs to be a more widespread environmental literacy in the country.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Develop competency-based standards for environmental curriculum appropriate to elementary, middle, and high school grade levels. Ensure that business/industry, government, and community entities have input, as well as academia.
- Coordinate with postsecondary educational institutions to ensure that secondary school graduation requirements meet the articulation standards of colleges/universities/technical schools.
- Work with state and national educational organizations to ensure nationwide standards are instituted.
- Develop hands-on and practical application environmental learning activities appropriate to elementary, middle, and high school grade levels.
- Develop a system of regular communication with other schools in order to ensure consistency of education.

Lifelong learning

ISSUE: Students, their families, and all community members need to be aware of, involved in, and committed to environmental concerns in order to impress upon students that education in environmental issues is important throughout life.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Provide education on environmental issues to students, parents, and all community members.

ISSUE: There is a lack of commitment/funding for teachers' professional development in environmental education.

RECOMMENDATIONS:

K - 12 educational institutions should:

- Budget and plan specifically for faculty professional development in environmental education.
- Require additional training of faculty in instructional techniques in order to facilitate transferability of environmental education between grade levels.

Multi-disciplinary curriculum

ISSUE: There is a lack of commitment to introducing environmental education programs in schools, to promoting integration of existing environmental curriculum in other disciplines, and to ensuring that competency-based environmental curriculum is established at each grade level.

RECOMMENDATIONS:

Note: See similar issue under "Curriculum."

End of critical issues report

WORKSHOP PARTICIPANTS

Alleyne, Erika
Hilton Elementary School
Baltimore, Maryland

Anderson, Roberta
San Carlos Unified School District
San Carlos, Arizona

Bagley, Larissa
Cherry Hill Elementary School
Baltimore, Maryland

Biggar, Matt
Palo Alto High School
Palo Alto, California

Booker, Catherine
Christa McAuliffe Middle School
Houston, Texas

Bordeaux, Chris
Wounded Knee District School
Manderson, South Dakota

Burdette, Cynthia
San Carlos Unified School District
San Carlos, Arizona

Bush, Jane
Talihina Elementary School
Talihina, Oklahoma

Calvin, Annalita Nova
San Carlos Unified School District
San Carlos, Arizona

Christensen, James
Fleming Middle School
Grants Pass, Oregon

Cox, Lockwood
Little Cypress-Mauriceville
High School
Orange, Texas

Dearing, Cheryl
Grantsville Elementary School
Grantsville, Utah

Dixon, Aline
John Whistler Elementary School
Chicago, Illinois

Edmonds-Lloyd, Marjorie
Parkmont School
Washington, DC

Fleiss, Elissa
Thomas Starr King Middle School
Los Angeles, California

Howard, Rhonda
Wooddale Middle School
Memphis, Tennessee

John, Erma
Elementary School
Shiprock, New Mexico

Kauers, Diana
San Carlos Unified School District
San Carlos, Arizona

Klindt, Kathy
San Carlos Unified School District
San Carlos, Arizona

Kobashigawa, Clyde
Kailua High School
Kailua, Hawaii

Lax, Miriam
El Sereno Middle School
Los Angeles, California

Marcus, Alwanda
Middle School
Buffalo, New York

McCraw, Shatika
Christa McAuliffe Middle School
Houston, Texas

McKinney, Cleve
Haywood, California

Nagamine, Lisa
Waipahu High School
Waipahu, Hawaii

Nelson, Shirley
Talihina School District
Talihina, Oklahoma

Olagunju, Lawrence
Oakland, California

Palko, Andrew
Chopticon High School
Morganza, Maryland

Pearson, Debbie
San Carlos Unified School District
San Carlos, Arizona

Pickel, Mark
Kennewick High School
Kennewick, Washington

Pokrzyk, Vivian
Lewiston-Porter Central
School District
Youngstown, New York

Selib, Marsha
Williamsville, New York

Simmons, Rita
High school
Newark, New Jersey

Spencer, Esther
Grantsville Middle School
Grantsville, Utah

Thompson, Durena
San Carlos Unified School District
San Carlos, Arizona

Thompson, Priscilla
Hughes Center
Cincinnati, Ohio

Wade, Douglas
Seth Lewelling School
Milwaukie, Oregon

Waterhouse, Corinne
Middle school
Kailua, Hawaii

Zachariah, Mary
High school
Baltimore, Maryland

ACKNOWLEDGMENTS

For all of the details and arrangements which ensured the success of the Critical Issues Workshop, Teacher Institute, and this resulting report, those involved with the workshop wish to express acknowledgment and thanks to:

Workshop Coordination and Report Production

Melonee K. Docherty
Workshop Report Editor
Instructional Designer, ATEEC/HMTRI
500 Belmont Rd
Bettendorf, IA 52722

Steven D. Fenton
Workshop Coordinator
Associate Director, HMTRI
500 Belmont Rd
Bettendorf, IA 52722

Ellen J. Kabat, Ph.D.
Workshop Coordinator
Director, ATEEC
500 Belmont Rd
Bettendorf, IA 52722

MSU Institute Coordination

Judith E. Greenberg
Institute Coordinator
Morgan State University
Cold Spring Lane & Hileen Rd
Baltimore, Maryland 21239

Notes:

Post-it® Fax Note 7671	Date 6-18-99	# of pages ▶ 1
To Nigui Beckrum	From Ellen Kabat	
Co./Dept. ERIC	Co. ATEEC	
Phone #	Phone # 319-441-4091	
Fax # 614-292-0263	Fax # 319-441-4080	

SE062579

U.S. Department
Office of Educational Rese
National Library
Educational Resources

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Critical Issues in K-12 Environmental Education

Author(s): Hazardous Materials Training & Research Institute

Corporate Source: Advanced Technology Environmental Education Center

Publication Date: 1998

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☑

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Ellen Kabat

Printed Name/Position/Title: Dr. Ellen Kabat, Director ATEEC

Organization/Address: Advanced Technology Environmental Education Center
500 Belmont Rd
Bettendorf, IA 52722

Telephone: 319-441-4091 FAX: 319-441-4080

E-Mail Address: ekabat@eiccd.cc.ia.us Date: 6-18-99

(over)