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ABSTRACT

Summarized is a project report for Project I-C-E (Instruction-Curriculum-Environment). Project I-C-E developed curriculum materials, provided inservice education, operated a resource material service, and evaluated student learning in the area of environmental education for grades 1-12. Included in this document are reports on these activities and summaries of several research studies related to the project. Student evaluations indicate that most students attained the objectives of the program. Teachers and parents generally were positive about the program. (RH)

PROJECT I-C-E
(Instruction-Curriculum-Environment)
Green Bay, Wisconsin

END OF PROJECT PERIOD REPORT

Project #59-70-0135-4
Wisconsin Department of Public Instruction

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WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION
CENTER FOR RESEARCH AND PROGRAM DEVELOPMENT
126 Langdon Street
Madison, Wisconsin 53702

PROJECT DATA FORM
TITLE III, E.S.E.A.

FOR STATE DEPARTMENT USE ONLY	CO.	DIST.	SCH.	PROJ. NO.	EXP. CODE	AMOUNT APPROVED

SECTION A -- GENERAL INFORMATION

Project Title

Project I-C-E (Instruction-Curriculum-Environment)

Brief Summary of Purpose of Project

In Area "B", CESA's 3-8-9, to improve instruction and curriculum in environmental education.

Type of Submission (check one)

- ☐ Initial Application - Planning
- ☐ Initial Application - Operational
- ☐ Continuation Grant
- ☐ End of Budget Period Report
- ☒ End of Project Period Report

Type of Project (Initial application or resubmission only)

- ☐ Planning

OR

- ☒ Operational (check one below)
  - ☐ Innovative
  - ☒ Exemplary
  - ☐ Adaptive

Applicant Agency	Address	
Cooperative Educational Service Agency #9	1927 Main Street Green Bay, WI 54301	
Name of Project Director	**Address**	**Telephone No.**
Robert J. Warpinski	1927 Main Street Green Bay, WI 54301	468-7464 **Area Code** 414
Superintendent or CESA Coordinator (Please type)	**Address**	**Telephone No.**
John F. David	1927 Main Street Green Bay, WI 54301	468-7464 **Area Code** 414

I hereby certify that the information contained in this application is, to the best of my knowledge, correct and the local education agency named above has authorized me, as its representative, to file this application.

J. David

Signature of Person Authorized to Receive Grant

September 30, 1975
Date Submitted

NARRATIVE SECTION

I. Evaluation of Objectives

In this section, the major objectives for 1974-1975 are stated, techniques are listed for evaluation of achievement, and finally, a summary of results is provided.

Curriculum Development

From July through September 1974, Project staff, with a committee of teachers and selected specialists will complete revision, publication and, throughout the year, make available upon request from area teachers the series of Environmental Education Curriculum Guides for language arts, social studies, science, mathematics, home economics, industrial arts, music, art, agriculture, physical education and business education for grades 7-12, or as appropriate. (The K-6 integrated guide series editorial work will have been completed in June, 1974.)

The evaluation techniques for this objective consist of records and the existence of the revised series, K-12, I-C-E Environmental Education Guides. Details of each process activity are found in the attached monitoring section, summarized briefly herewith: 13 teachers, 7-12 level, and one consultant specialist for reviewing behavioral objectives worked during the week of July 8-12, 1974 (and some with additional follow-up) to complete the

revision task. Twenty-eight thousand nine hundred guides were published inhouse between July and November 1974, and distribution strategies pursued throughout the year, making the guides available by request to area teachers. Over 7,000 copies spanning all grade levels and subject areas were requested. In addition, each school and district, public and non-public, received a master set accounting for an additional 8,000 copies distributed. Furthermore, several thousand copies were distributed to teachers in workshops, and to various state and national agencies, groups and individuals to which must be added the copies sold to individuals, schools and districts and various organizations outside of the project area.

Teacher Change

During the 1974-1975 Project year, staff will conduct the following activities in the Project area schools and districts: 1. Inservice programs through project/district arrangements for the purpose of promoting implementation of the revised EE Curriculum Guides, 2. Workshops as requested in local guide adaptation techniques, resource utilization, outdoor/community strategies and small group planning for teaching environmentally, and 3. National Environmental Education Fair to acquaint teachers with a variety of other national environmental instructional methods and materials to motivate teacher use of such materials and Project I-C-E services. Combined programs

will involve a minimum of 1,000 total area teachers, with each activity type evaluated by: a) an end-of-activity questionnaire at a 50% positive impact and effectiveness level, and b) an end-of-year follow-up survey of a stratified random sample of at least 100 teachers in each activity type to determine what change, if any, resulted from their program participation, project involvement and project services.

Evaluation strategies for this objective called for rating questionnaires for the various components with a 50% positive impact/effectiveness level of achievement indicating satisfactory performance. The specific process activities are again detailed in the attached monitoring section. In summary, project staff did not fulfill all the specified strategies, particularly in the inservice and workshop categories. While a number of such inservice programs and workshops were held, they were not evaluated by the participants due to time constraints within each program framework. Evaluation data is available on the National EE Fair in two forms: 1) Immediate evaluation at the time of the Fair, and 2) That of 3-6 months following the Fair. Appendix "A" is the immediate evaluation summary and Appendix "B" is a summary of Fair follow-up evaluation. Both are well above the 50% level. A general project survey, using the I-C-E CAP newsletter as a medium, brought in significant data on project activities from teachers

in the project area. Appendix "C" contains a summary of this evaluation, which is very positive especially in key elements, such as the 88% who expressed the desire that the I-C-E Regional Environmental Education Center continue serving area schools.

Resource Material Center Services

During the 1974-1975 Project year, the staff will selectively identify and purchase, solicit donations and develop new instructional resources, provide a supplement of such to the I-C-E RMC Bibliography, distribute these to area teachers, service requests at a nominal service charge and maintain records of the circulation and evaluation of such instructional media items in the area schools.

Records maintained constitute the basic evaluation element for this objective. The project does have on record a revised RMC Bibliography which was distributed to area teachers. RMC service requests and circulation records are available, and where teachers returned the evaluation report on each RMC item, there is data rating of general merit, number of times used and number of students involved. Not all teachers returned such information but the data provided in Appendix "D" represents a summary based on 60% of the forms so returned. The

project serviced 1,374 requests, with 54,059 students specifically recorded, but probably 70,000 total benefitting from such services, and generated $1.516.75 in service charges which were entered as reimbursement for project expenditures.

Student Change

During the 1974-1975 Project year, a minimum of 100 students at each of: 1) Primary (grade 2), 2) Intermediate (grade 5), 3) Junior high (grade 8), and 4) Senior high (grade 11) levels where the Project I-C-E environmental education program has been implemented will show significantly greater post-test scores ($p \leq .01$) than a control group with a similar number of students at each grade level as determined by affective and cognitive instruments based on the twelve major I-C-E environmental concepts.

Pre- and post-testing of students in project experimental schools and comparing the results with a control school provides the evaluation strategy for this objective. Students in grades 2, 5, 8 and 11 from various broadly representative schools and districts in the project area were selected for experimental purposes. A pre-test in October, using the revised and validated ECI instruments, followed by program implementation with assistance from project staff, and with post-testing in April, 1975 gave

evidence that students in the program achieved better in environmental concepts in all but the 11th grade as did students in the control group. Appendix "E" provides a complete analysis report of this activity, and includes additional data which was part of a special grant under Title III, Section 306. The attached monitoring section for this objective provides additional detail in the process activities.

Project Dissemination

During 1974-1975, Project staff will initiate, respond and fulfill appropriate needs and requests for information, programs, materials and releases directed toward or emanating from the following audiences:

1. Area educational community,
2. All area news media,
3. Area business, civic and social organizations,
4. Other local, state and federal agencies,
5. Information and at-cost materials to appropriate other state area and national individuals, institutions and agencies, and
6. Approved state and national dissemination conferences.

Complete records of dissemination activities, information requests and their fulfillment will be maintained.

Project records and copies of media items constitute the evaluation for this objective. Process details are

recorded in the attached monitoring section. Dissemination in the project area occurred through the I-C-E CAP newsletter, through the area press and a number of public service announcements via radio, and a special program on Channel 38 TV. All inquiries were responded to, and the project materials and information broadly disseminated nationally.

Project Continuation

During the 1974-1975 year, staff will continue to explore local, state, federal and private foundation sources for project continuation funding for any or all project components and at a level consistent with project service capacity and demands in Area "B". Measurement of this objective will be evidenced by continued funding of project operations. (With/Without such continuation funding, Project Director will file an "End of Project Period" report within 90 days of termination of E.S.E.A. Title III funds.)

Evaluation is again a matter of records maintained. Brochures on continuing operation locally and in other areas of Wisconsin through a system of Contract Service Units were broadly disseminated via mail and various meetings. Proposals were submitted under the National Environmental Education Act and under Title III, Section 306. The project was funded under the latter for

National Dissemination following approval by the USOE Dissemination Review Panel. Locally, the Project RMC and very limited staff services are continuing under a self-supporting program of rental fees and service charges.

L. Unpredicted Outcomes

Culminating in the fifth year (1974-1975) with the publication of the revised, final version of the I-C-E Environmental Education Guides was an anticipated outcome. These materials have generated interest and demand on a local, state, national and international level over the years of project operation, and thus far exceeded expectations. In the project area, the first draft edition was distributed to all area teachers for the purpose of eliciting feedback and to provide teachers with materials to teach environmentally as quickly as possible. This first draft also generated considerable interest outside the project area following various dissemination activities such as attendance at conferences and workshops, articles in various publications and by word of mouth. The initial publication and subsequent reprinting, in excess of 40,000 booklets, were produced and disseminated in this manner.

During the last year (1974-1975) the revised publications were distributed locally using several different strategies. First, all schools, public and private, in the project area automatically received a complete master set appropriate to the grades/subjects in each individual school.

Then individual teachers, principal, administrator requests were filled following a series of notices on availability through letters and announcements in the I-C-E CAP newsletter. This "by request only" strategy resulted in over 2,000 requests for over 7,000 guides in the project area. This substantive evidence of interest and use of the I-C-E materials far exceeded expectations. At the same time interest in and purchase at cost of project materials from and by parties outside of the project area continued. Over 400 such inquiries and orders were fulfilled during the 1974-1975 project year.

In other project activities such as staff services, use of the Resource Material Center and individual and group contacts were maintained at levels equal to or exceeding demands of prior years. In particular, the Resource Center services, despite the service charge for materials circulated, did not diminish significantly, although private school use dropped somewhat.

Project objectives called for specific evaluation strategies for several different components. In the area of workshops and inservice programs, both in the immediate and follow-up stages, we did not obtain adequate evaluation data. Much inservice and workshop activity has to take place at times convenient to target audiences. Frequently, these were after-school hours, within a short time period determined by teacher contract. It

was difficult to do a program or workshop and have time available for evaluation.

The student impact study during 1974-1975 using project experimental or pilot schools and a control group outside of the project area provided significant change data at grades 2, 5, and 8. Grade 11, however, did not achieve results at any significant level above that of the control group. It was difficult to get teachers at grade 11 to implement the I-C-E program according to experimental group requirements. While seven 11th grade teachers were involved, only three performed at expected levels meeting the criteria of teaching one episode or activity for each of the 12 concepts in the program.

I. Impact of Title III

During the first year of project operation, upon formation of the first teacher committees for environmental curriculum development, K-12, committee members were asked to survey their fellow teachers on environmental education needs. The question, in summary, "What do you need to teach environmentally" had the overwhelming response of, "Give us some materials!" The project provided a quick and practical response. The 39-booklet series as it exists today provides over 1,100 episodes (mini-lesson plans) that contain over 5,000 suggested activities as developed by 235 area

teachers representing all grades and major subject areas except foreign languages. All evidence points to an assumption that of the area's 7,500 teachers, one third or more have made direct and frequent use of Project materials and services, another third were somewhat influenced and made limited use of resources available. The remaining one third were probably not affected significantly, if at all.

Unobtrusive measures or indices tend to support additional impact in the project area. More teachers are using the community as an educational resource and have been supported by the community in environmental endeavors. Business, industry and various agencies and organizations have contributed resources in kind and in personnel to support and enhance environmental education. An excellent example of the combined efforts of a number of individuals, agencies and industry working together is the establishment of Fallen Timbers Nature Center. This 430-acre site was purchased by the Fort Howard Foundation following the submittal of a proposal, written by George Howlett, I-C-E EE Specialist, together with a consortium of school districts and Cooperative Educational Service Agency No. 9. This nature center is now a viable, functional operation serving five area school districts and the Fox Valley Technical Institute.

Based on inquiries and orders for project materials from statewide schools, other states and diverse foreign countries, the I-C-E model has had a great impact on environmental education. The conceptual framework, the simple, explicit, yet flexible, episode design, and the total ecological focus of the I-C-E program provides for ready integration of environmental instruction in any curriculum program which accounts for its universal appeal.

IV. Cooperative Effort

Project I-C-E was established as part of a regional network in Wisconsin from a determination made by the State Title III Advisory Council to approach educational needs on a broader basis than that of individual school districts. Consequently, Project I-C-E served 53 public school districts and 122 non-public schools within Cooperative Educational Service Agencies 3-8-9. This constitutes all or parts of thirteen counties in northeastern Wisconsin. Throughout the operational period the project generally enjoyed a high level of support from all local education agencies, the Green Bay Diocesan Department of Education, and the area's colleges and universities--University of Wisconsin-Oshkosh, St. Norbert College, Lawrence University and University of Wisconsin-Green Bay. With the latter, in particular, there was, and continues, an excellent

working relationship, since UW-GB has a similar environmental focus. While mentioned in a previous section, we again cite the following contributors to the I-C-E RMC--Green Bay Packaging Corporation, the Brown County Conservation Alliance, Green Bay Downtown Kiwanis, the Northeastern Wisconsin Garden Club Federation, Betten Processing Company, the Northeastern Wisconsin Chapter of the American Institute of Architects and the Wisconsin Public Service Corporation.

In addition, personnel from various local, state and federal agencies frequently interact and made their services available for various project activities. These include agricultural agents from various counties, the U. S. Soil Conservation Service, the Wisconsin Department of Natural Resources, the U. S. Forest Service, and Regional Planning Commissions. Such mutual activities were involved in site planning and for various workshops during the years of project operations. The Wisconsin Department of Public Instruction, through the office of the Science and Environmental Education Specialist and various other consultants, played a continuing role in project development. Together with staff from the Title III office, Wisconsin Department of Public Instruction, the net result has been a broadly based input in overall project development, implementation, dissemination and effectiveness.

V. Dissemination

Local dissemination strategies followed objectives as set forth in operational and continuation proposals. Various mediums were used consistent with needs and appropriateness to given situations. Area teachers were the specific target audience for the project newsletter--the I-C-E CAP. This one-sheet, two-page newsletter served the purpose of announcements, publicized events and resources and shared experiences of teachers in the project area. An extensive mailing list to outside of project area contacts provided a broader visibility. Area radio stations frequently provided public service announcements for particular occasions. Local television stations featured project operations on several instances, including a half-hour special on the National Environmental Education Fair on Channel 38. Press coverage was adequate in most local papers in carrying announcements and some limited feature articles. The Green Bay Press Gazette, however, did provide excellent articles by staff writers at various developmental stages of the project with the general public as target audience.

Dissemination to appropriate state and federal agencies followed guidelines and in response to requests for specific reports. Project participation in a number of local, state and national conferences, while not a planned strategy, did elicit a considerable interest

and response. Personal interaction with individuals and groups interested in environmental education often proved to be mutually beneficial. Often a free exchange of materials and ideas resulted.

Several major articles in national publications written either by request or submitted for consideration had highly rewarding results. A Title III Quarterly publication on environmental programs in 1972-1973 had a feature article on Project I-C-E that had a considerable impact. Others of note included an article in the Journal for Environmental Education and a number of smaller articles and notices in EE Report.

Several other dissemination avenues that proved very effective included listings in ERIC at Ohio State University and the Science Reports from the University of Maryland. Both are major reference and resource centers for science and environmental education. Also in connection with national validation, the Title III catalog publication of validated programs provided considerable national visibility. These kinds of broader dissemination activities were not necessarily planned, but were in response to arising situations.

VI. Phasing Out of Federal Funding

Various efforts were made to continue the project operation in the area as well as extending services to neighboring districts in adjacent Cooperative Educational Service Agencies. The method employed a Contract Service Unit with a number of options such as a specific set of services, selected services only, and an open-ended option, all designed to meet district inservice requirements. State and subsequent school district budget problems mitigated any positive results until summer. Another effort, that of a major proposal under the National Environmental Education Act, which closely parallelled the above strategy, was submitted in January 1975. It was not funded, with notice received the last week in June, 1975. In the meantime, project professional staff dissipated, taking other positions to assure continued employment. Hence, once school budget issues were somewhat clarified, there was no serious effort made to push for Contract Service Units as staff was not available to fulfill such contracts.

As a Cooperative Educational Service Agency based project, identification with and support from local school districts served is difficult to muster. This is especially true presently, with ever-tightening school budgets.

Project I-C-E, however, has been funded under Title III, Section 306 for 1975-1976 as a Developer/ Demonstration project in a National Diffusion Network following approval by the USOE Dissemination Review Panel. Such funds must be directed toward serving potential adopters/adapters in locales other than the original project service area. This then includes other districts in the state and in other states, with a majority of the effort in the latter category.

The Project I-C-E Resource Material Center is one component that will continue serving the project area districts and non-public schools. Based on rental fees charged and sale of materials, with staffing assistance provided under the Comprehensive Employment Training Act, sufficient revenue is anticipated to maintain this service component during 1975-1976.

With many outstanding teachers, a great staff, excellent support from state Title III office personnel and many others, we took on a real challenge and together we made a success of it. As director--I say to all, humbly and sincerely, thank you.

I. CURRICULUM DEVELOPMENT - Performance Objective

From July through September 1974, Project staff, with a committee of teachers and selected specialists will complete revision, publication and, throughout the year, make available upon request from area teachers the series of Environmental Education Curriculum Guides for language arts, social studies, science, mathematics, home economics, industrial arts, music, art, agriculture and physical education for grades 7-12, or as appropriate. (The K-6 integrated guide series editorial work will have been completed in June 1974).

I-A Process Objective - Curriculum Development

During July 1974, Project staff will identify a committee of approximately 14 teachers and several specialists for a one week workshop to complete the editorial work on the secondary (7-12) guides.

Activity	Outcome	Monitoring
Workshop to complete revision of secondary EE guides	Revised guide drafts ready for publication	Teachers identified and selected for final revision committee: Jack Rickaby, Hortonville John Anderson, Peshtigo Ron Conradt, Shiocton Ginger Stuvetraa, Oshkosh Terry Heckel, Marinette Jean Lucier, Ashwaubenon Bill Poupore, Little Chute Rick Menard, Little Chute Jim Curran, Green Bay Paul Plantico, Green Bay Kathy Jonen, Kaukauna Wendell Mitchell, Green Bay Don Leibelt, Green Bay Work accomplished July 8-12, 1974.
Staff		
R. Warpinski R. Kellner G. Howlett 14 teacners specialists		
Time		
July, 1974		

I-B Process Objective - Curriculum Development

During July and August 1974, Project staff will arrange for the publication of the complete revised series of Environmental Education Guides.

Activity	Outcome	Monitoring
Publication of EE Guides	Revised edition of Environmental Education Guides available to area teachers	Publication began July 29; 1. Offset equipment, 2 presses 2. Temporary staffing a) For typing masters. b) Running presses. c) Collating 3. Production (See back)
Staff		Publication not completed until November 5, 1974, with a total of 29,800 booklets.
R. Warpinski R. Kellner Publication staff as needed		
Time		
July and August 1974		

K	1,000	Art 7-9	750	Physical Education K-6	750
1	1,000	L. A. 9-12	1,000	Art 4-6	500
2	1,000	World History	600	Art K-3	600
3	1,000	Gen. Math 9-12	1,000	Home Economics	750
4	1,000	American History	600	Music K-3	500
5	1,000	Elective Studies	600	Music 4-6	500
6	1,000	Physics	600	Business Education	600
Agriculture	500	Art 10-12	600		
L. A. 7 & 8	1,000	Chemistry	750	TOTAL -- 28,900 BOOKLETS	
Math 9-12	1,000	Physical Science	750		
S. S. 7 & 8	1,000	Physical Education 7-12	750		
Music 7-9	750	Industrial Arts 7-12	750		
Music 10-12	750	Math 7	500		
Earth Science	750	Math 8	500		
Life Science	750	Civics	600		
Biology	750	Industrial Arts 9-12	1,000		

I-C Process Objective - Curriculum Development

From September 1974, and throughout the 1974-75 school year, the new edition of the Environmental Education Guides will be available upon request to Project area teachers.

Activity	Outcome	Monitoring
Distribution of guides	Interested teachers in Project area will have guides available for environmental education	Area teachers informed of revised guide availability starting with National EE Fair, August 27-28, 1974. Notice in I-C-E Cap in each of the following issues: September, 1974 October, 1974 November, 1974 March, 1975
Staff		
R. Warpinski R. Kellner G. Howlett		Guides available or for sign up at Green Bay Diocesan Teachers Convention October 3-4, 1974. September, 1974--letter to all area principals November, 1974--letter to all former teacher committee members.
Time		
September and during 1974-75 school year		On record over 1,900 requests by individuals, teams, schools or districts with a total of over 7,000 guides. All schools, in public or non-public schools, received a master set appropriate to grades/ subjects for each building.

I-D Process Objective - Curriculum-Development

Evaluation of this performance objective by Project staff during 1974-75 will consist of records of the summer workshop, the existance of the revised edition of the Environmental Education Guides, and data on distribution to project area teachers.

Activity	Outcome	Monitoring
Evaluation of curriculum work, guide publication and distribution	Material evidence and records available for final report	1. Summer Workshop on record. 2. Publication data on record. 3. Distribution data on record.

Staff
R. Warpinski R. Kellner

Time
During 1974-75 Project year

II. TEACHER CHANGE - Performance Objective

During the 1974-1975 Project year, staff will conduct the following activities in the Project area schools and districts: 1. Inservice programs through project/district arrangements for the purpose of promoting implementation of the revised EE Curriculum Guides, 2. Workshops as requested in local guide adaptation techniques, resource utilization, outdoor/community strategies and small group planning for teaching environmentally, and 3. National Environmental Education Fair to acquaint teachers with a variety of other national environmental instructional methods and materials to motivate teacher use of such materials and Project I-C-E services. Combined programs will involve a minimum of 1,000 total area teachers, with each activity type evaluated by: a) an end-of-activity questionnaire at a 50% positive impact and effectiveness level, and b) an end-of-year follow-up survey of a stratified random sample of at least 100 teachers in each activity type to determine what change, if any, resulted from their program participation, project involvement and project services.

II-A Process Objective - Teacher Change

During the 1974-75 Project year, staff will plan and provide flexible inservice programs to meet the needs of districts/schools to promote implementation of the revised Environmental Curriculum Guides.

Activity	Outcome	Monitoring
Plan inservice program	Inservice program for revised EE Guide implementation available to area teachers	Basic program components planned to include the I-C-E concepts and suggested activities to promote guide use and use of the community as an educational resource. Concepts: Man Needs His Environment, revised during 1974-1975. Community: Head High in Learning, revised during 1974-1975. Guides: Available, completed, revised by November 5, 1975. Numerous other specialized topical AV programs assembled as needed by EE Specialist.
Staff R. Warpinski R. Kellner G. Howlett		
Time 1974-75 Project year		

II-B Process Objective - Teacher Change

Staff will plan workshop designs during the 1974-75 Project year in the areas of local district/school guide adaptation techniques, resource utilization, outdoor/community strategies and promoting and assisting small group teacher planning sessions.

Activity	Outcome	Monitoring
Plan workshop designs	Workshop designs for guide adaptation, resource use, community strategies and small group planning available to area teachers.	Various flexible designs available and used during 1974-1975 project year: 1. At district/school. 2. Teacher staff visiting Project Center. 3. Field trip experiences. 4. Individual planning with teachers by EE Specialist, G. Howlett, assisted by Suzanne Simon (CETA Program after January, 1975) and other staff as needed.
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
1974-75 Project year		

II-C Process Objective - Teacher Change

A National Environmental Education Dissemination Fair will be planned and held in August 1974, co-sponsored by Project I-C-E, the University of Wisconsin-Green Bay and other cooperating agencies for area, state and national teachers to promote environmental instruction and support area project activities, with a post-fair evaluation design for May, 1975.

Activity	Outcome	Monitoring
Plan, stage National EE Fair; provide evaluation design	Fair to provide motivation, materials, strategies for environmental instruction to area and other teachers	Fair scheduled and held August 27-28, 1974 at UW-GB Campus. Basics: 1. 21 programs and sectional presentations. 2. 29 programs manned displays. 3. Continuous film festival. 4. Over 1,750 teachers attended, most from local districts; but also a good representation from other parts of the state and other states. 5. Very positive evaluation, on site. 6. Post-fair evaluation completed under April 1 deadline.
Staff		
R. Warpinski R. Kellner G. Howlett Dr. R. Cook Selected national projects Selected evaluation consultants		
Time		
August 1974 May 1975		

II-D Process Objective - Teacher Change

Prior to September 1974, and throughout the 1974-75 Project year, staff will inform, via newsletter, memos, and personal approach, area public and private school administrators and principals of the inservice, workshops and Fair designs.

Activity	Outcome	Monitoring
Inform via newsletter, memos, personal approach	Public school administrators and private school principals aware of project program activities to foster environmental education in area schools.	August, 1974--Director and staff visited all districts to promote fair and project activities. September, 1974--Letter to all area principals promoting inservice activities. Various I-C-E CAP issues carried inservice promotional notices. Numerous individual staff contacts with administrators, principals and teachers.
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
Before September 1974 and 1974-75 Project year		

II-E Process Objective - Teacher Change

During the 1974-75 Project year, staff will schedule and fulfill inservice and workshops as requested by area schools and stage the National EE Fair in August, maintaining a record of dates and number of participants for all activities.

Activity	Outcome	Monitoring
Schedule and fulfill requests for inservice & workshops, stage EE Fair	Area school inservice programs and workshops for teachers performed to promote EE. Data recorded. EE Fair held.	August 27-28, 1974 National EE Fair, 1,750 teachers (estimated) - Regular Inservice Activity - July 1974 7/22 Notre Dame School, DePere, Workshop--23 7/22 UW-Oshkosh, El. Ed.--17 7/24 UW-GB, Thompson, Methods--8 August 1974 8/29 Green Bay at Reforestation--54 8/30 St. Joseph, Sturgeon Bay--10 September 1974 9/23 St. Norbert College, Frigo class--22 9/25 St. Norbert College, Frigo class--19 9/25 UW-GB, Presnell class--11 9/25 UW-GB, Van Koevering class--16 October 1974 10/17 Howard-Suamico Middle--11 November 1974 11/19 St. Nicholas, Freedom--14 11/25 St. Norbert College, Adams class--25 December 1974 12/10 UW-GB Thompson class--7 February 1975 2/14 Suring staff inservice--32 2/21 Appleton art department--17 March 1975 3/20 Green Bay, Martin School--6 3/20 St. Norbert College, Adams--18 3/31 Appleton, Mosquito Hill Center--50 April 1975 4/1 Green Bay, Webster School--20 May 1975 5/20 UW-GB, Sanders class--15
Staff		
R. Warpinski R. Kellner G. Howlett Consultants as needed		
Time		
1974-75 Project year		

II-F Process Objective - Teacher Change

The inservice workshop and fair activities during the 1974-1975 Project year will be evaluated by project staff and selected consultants via questionnaire-type instrument, designed for and dictated by the nature of the program, involving at least 1000 area teachers, at a 50% positive impact and effectiveness performance criterion level.

Activity	Outcome	Monitoring
Evaluation of inservice, workshop and EE Fair	A minimum of 1000 area teachers evaluated for change impact and effectiveness as a result of project activities.	August 1974--EE FAIR evaluation 1. 258 respondents, 4.1 on a scale of "1 - low to 5 - high". 2. Program participants, 17 of 21 responding 4.5 on scale of "1 - low to 5 - high". January 1975 General survey of area teachers via I-C-E CAP: Number returned disappointing, with 190 respondents. Overall rating at 63 percentile positive. April 1975 EE Fair follow-up survey, 259 responses, key item #6 had 2.7 on a 4-point scale, or 56.4% positive rating.
Staff		
R. Warpinski R. Kellner Selected evaluation consultants		
Time		
During 1974-1975 Project year		

II-G Process Objective - Teacher Change

During the project year, 1974-1975, the Project staff and evaluation consultants will design and administer an end-of-year survey of a stratified random sample of at least 100 teachers in each activity type to determine the nature of teacher change resulting from program participation, project involvement and services.

Activity	Outcome	Monitoring
Design and administer end-of-year follow-up survey	Measurement of the nature of teacher change--resulting from project in-service programs and workshops	The general I-C-E CAP survey in January and post-EE Fair evaluation in April basically served this purpose.
Staff		
R. Warpinski R. Kellner evaluation consultants		
Time		
1974-1975 Project year		

III. RESOURCE MATERIAL CENTER SERVICES - Performance Objective

During the 1974-1975 Project year, the staff will selectively identify and purchase, solicit donations and develop new instructional resources, provide a supplement of such to the I-C-E RMC Bibliography, distribute these to area teachers, service requests at a nominal service charge and maintain records of the circulation and evaluation of such instructional media items in the area schools.

III-A Process Objective - Resource Center Services

During 1974-1975, Project staff will selectively identify and purchase, under available budget, solicit donations and develop new instructional resources as additions to the Resource Center, add a supplement to the I-C-E RMC Bibliography, to service area teacher requests.

Activity	Outcome	Monitoring
Acquire additional RMC materials, provide bibliography supplement	Provide resources for area teachers to stimulate and assist EE instruction in area schools.	July 1974: Three films (duplicate copies) received from Brown County Conservation Alliance. October 1974: Filmstrip/Record donated by Betten Processing Co. on behalf of Iron and Steel Institute. During the course of the year, duplicate media items obtained under regular budget and under auspices of E.S.E.A. Title III, Section 306. Media Catalog supplemented, new cover, published in September, 1974. New media catalog printed, February 1975.
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
During 1974-1975 Project year		

III-B Process Objective - Resource Center Services

During the 1974-75 year, Project staff will service or respond to all requests for resource materials, such services to be provided at a nominal service charge per item or by district/school subscription.

Activity	Outcome	Monitoring
Service requests for resource materials	Resource materials available to area teachers to promote environmental instruction.	Per-item service charge instituted and annqunced in September issue of I-C-E CAP. Charge categories as follows: Fiims @ 1.50 per reel Filmstrips, kits, simulation games @ 1.00 each Books, etc. @ 25¢
Staff		
R. Warpinski Resource Center clerical help		
Time		
During 1974-1975 Project year		

Evaluation of the Resource Center Services by Project staff during the 1974-1975 Project year will be in the form of information on new acquisitions, number of requests received, students served, evaluation data on individual items and service charge records contained in an end-of-year report.

Activity	Outcome	Monitoring
Evaluation of Resource Center Services	Report on nature and effectiveness of Environmental Resource Center services to area teachers and students.	Most acquisitions were in the form of replacement copies of materials, mostly films. Circulation data is a matter of RMC record for each item: Total requests: 1,374 Total times used: 2,168 Students served: 54,059 Data on times used and students served includes only those which are substantiated by teacher response forms. There was additional use and more students served but for which no response forms were received. Service charges assessed during 1974-1975 amounted to $1,516.75 and was recorded as reimbursement to Acct. 7290 for postage, UPS, handling costs.
Staff		
R. Warpinski Resource clerical help		
Time		
During 1974-1975 Project year		

IV. STUDENT CHANGE - Performance Objective

During the 1974-1975 Project year, a minimum of 100 students at each of: 1) Primary (grade 2), 2) Intermediate (grade 5), 3) Junior high (grade 8), and 4) Senior high (grade 11) levels where the Project I-C-E environmental education program has been implemented will show significantly greater post-test scores ($p \leq .01$) than a control group with a similar number of students at each grade level as determined by affective and cognitive instruments based on the twelve major I-C-E environmental concepts.

IV-A Process Objective - Student Change

By September 1974, Project staff and evaluation specialists will revise the affective and cognitive I-C-E test instrument for grades 2, 5, 8 and 11 for administration to test and control groups.

Activity	Outcome	Monitoring
Revise affective and cognitive ECI's	Revised ECI's available for pre-testing in test and control groups September, 1974	August, 1974 Staff decision to delete Affective measure and to revise the cognitive ECI's to correspond to the newly revised ICE Guides. September/October 1974 Revised Cognitive instruments completed.
Staff		
R. Warpinski R. Kellner G. Howlett Selected evaluation specialists		
Time		
By September, 1974		

IV-B Process Objective - Student Change

During September 1974, Project staff will identify the test and control groups with the specified number of students and administer the pre-test with the aid of the cooperating teachers. Results of the pre-test will be computer tabulated.

Activity	Outcome	Monitoring
Identify test and control groups; administer pre-test	Pre-test scores available for comparison for test and control groups	Test (Experimental) schools identified as follows: St. Joseph Elementary, Sturgeon Bay Sevastopol Schools, Sturgeon Bay Denmark Schools DePere Schools Notre Dame Elementary, DePere Marinette Middle School Clovis Grove, Menasha Cognitive pre-test administered by November 10, 1974. Control schools identified: Kiel Public Schools St. Peter & Paul Elementary, Kiel Cognitive pre-test administered by November 10, 1974.
Staff R. Warpinski R. Kellner G. Howlett cooperating teachers		
Time September, 1974		

IV-C Process Objective - Student Change

From October 1974 through April 1975, the project staff and cooperating teachers of the test groups will, after reviewing the test results, schedule a series of planning and information sessions whereby the project staff will provide on-going assistance to those teachers for implementation of the revised I-C-E Guides, resource materials and supporting staff services.

Activity	Outcome	Monitoring
Review test results; planning and implementation of I-C-E program	Identify instructional needs and provide on-going project assistance program	George Howlett, EE Specialist, provided consultant and instructional services to experimental school staff involved on a regular schedule to assist in program implementation (also joined by Sue Simon, January 1975) Teachers involved in program: Grade 2: Mary Lardinois, St. Joseph, S.B. Judy Sweedy, Denmark Karen Vanvoren, Denmark Mary Shand, Sevastopol Grade 5: Dennis Graham, Denmark Colleen Boland, Notre Dame Kay Baugie, Notre Dame Hartsman, Clovis Grove, Menasha Haley, Clovis Grove, Menasha Grade 8: Wayne Haubner, Marinette Alethea Selsor, Marinette Len Anderson, Marinette Robert Mellinger, Marinette Grade 11: James DeLorme, DePere Ms. Hutjens, DePere
Staff		
cooperating teachers G. Howlett R. Kellner R. Warpinski		
Time		
October, 1974		

IV-D Process Objective - Student Change

During May 1975, Project staff along with the cooperating teachers will administer the post-test to the test and control groups, with the results tabulated by computer.

Activity	Outcome	Monitoring
Post-test given to test and control groups	Post-test results available for comparison of test and control groups	Post-test administered in experimental schools between April 24 and May 10, 1975. May 10 - Test information submitted to Dr. Katzenmeyer, R. & D. Center for computer scoring and analysis.

Staff
R. Warpinski R. Kellner G. Howlett cooperating teachers

Time
May, 1974

IV-E Process Objective - Student Change

By the end of May 1975, evaluation specialists and project staff will provide an analysis of the pre-post test results indicating what significant change, if any, exists between the test and control groups, where the former had the services of the Project materials, resources and staff.

Activity	Outcome	Monitoring
Analysis of pre-post test scores of test and control groups. (Exact means of test analysis to be determined.)	Analysis data on what significant change, if any, exists between test and control groups	Dr. Conrad Katzenmeyer, R & D Center, Madison, supplied data analysis for pilot school operation. Based on control school norms, I-C-E program students at grades 2, 5 and 8 did significantly better at concept mastery, and grade 11 was basically unaffected by the program. A complete report and analysis, together with that of Section 306, Title III project are a part of this record.
Staff		
Evaluation specialists R. Warpinski R. Kellner		
Time		
End of May 1975		

V. PROJECT DISSEMINATION - Performance Objective

During 1974-1975, Project staff will initiate, respond and fulfill appropriate needs and requests for information, programs, materials and releases directed toward or emanating from the following audiences:

1. Area educational community,
2. All area news media,
3. Area business, civic and social organizations,
4. Other local, state and federal agencies,
5. Information and at-cost materials to appropriate other state area and national individuals, institutions and agencies, and
6. Approved state and national dissemination conferences.

Complete records of dissemination activities, information requests, and their fulfillment will be maintained.

V-A Process Objective - Dissemination

During the 1974-1975 school year, the Assistant Director will write/edit nine issues of the newsletter, the ICE Cap, for distribution to area schools, districts, and a selected list of area media, and appropriate local and state educational and non-educational personnel. The newsletter will promote teacher use of project materials, programs and services.

Activity	Outcome	Monitoring
Write/Edit monthly newsletter, the ICE Cap.	Keep teachers and a selected list of non-teachers informed of Project materials, programs, and services.	Nine issues of the I-C-E CAP newsletter were published on/about the 15th of 1. September, 1974 2. October, 1974 3. November, 1974 4. December, 1974 5. January, 1975 6. February, 1975 7. March, 1975 8. April, 1975 9. May, 1975
Staff		
R. Kellner		
Time		
September through June		

V-B Process Objective - Dissemination

Project staff will update and utilize various components of the project information portfolio outlining project purposes, resource materials, order blanks and nominal fees, and available services to fulfill requests for information from area schools, districts, the community at large, the media and non-area educators or public agencies.

Activity	Outcome	Monitoring
Update and utilize components of the information portfolio to provide information about available project purposes, materials, and services	Fulfill all requests or inquiries with current and complete information to all interested area and non-area audiences.	State Title III/DPI issued brochure "Project I-C-E" used for basic information medium during the year. Over 4,800 copies distributed to numerous publics. October 1974 Project lists of available materials updated to reflect revised guide edition. February, 1975 Promotional brochure to promote area/state continuation activities developed and printed (2,500).
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
1974-75 Project year		

V-C Process Objective - Dissemination

During the 1974-1975 Project year, Project staff and the Resource Center will be available to work with students and teachers from area colleges and universities, with area civic and social organizations, with local business and industry, and with other local, state and federal agencies for the purpose of identifying and coordinating the integration of other community resources and agencies into existing instructional programs and generating interest and support from the area public at large.

Activity	Outcome	Monitoring
Program strategies involving total area community	Provide a community service and develop community support for environmental education in the area	"Visitor Log" maintained for record of persons using the RMC - incidental basis. Numerous programs, inservice type, saw teacher groups and university classes becoming familiar with Project RMC.
Staff		
R. Kellner G. Howlett R. Warpinski		
Time		
1974-75 Project year		

V-D Process Objective - Dissemination

During the 1974-75 year, Project staff will attend local, state and national conferences for the purpose of dissemination and sharing of information when approved by state consultant and the Project administrator.

Activity	Outcome	Monitoring
Attendance at conferences	Non-local dissemination and sharing of information	8/11-14/74 George Howlett at CEA Convention, Syracuse, New York. 9/19-21/74 George Howlett at Midwest EE Conference, Laredo Taft Field Campus, Oregon, Illinois. 10/2/74 R. Warpinski, Eau Claire, State Title III Drive-in. 10/3-5/74 Green Bay Diocesan Education Convention, Arena, Green Bay. 10/19/74 Diocese of Superior Workshop, Rice Lake, Wisconsin. 10/28/74 UWGB-Energy Conference, Howlett, Kellner. 11/24/74 Library display, Sturgeon Bay 4/18/75 Oconomowoc, State Social Studies Conference, Sectional Program. 4/26 - 5/8 New Orleans, R. Warpinski, NAEE and Showcase '75. 5/16-18/75 Sevastopol display, WSO Conference
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
1974-75 Project year		

By June 1975, evaluation of Performance Objective V, Dissemination, will be evidenced by a summary report based on data from the following sources: 1. Records of the numbers of teacher/school requests for resources or services featured in the ICE Cap, 2. Records of requests for information, programs or materials from area business, civic, social agencies or the media, 3. Records resulting from dissemination efforts, and 4. Documentation of requests for information and/or materials from appropriate non-local individuals, institutions and agencies.

Activity	Outcome	Monitoring
Evaluation of dissemination efforts	Complete records and a summary report of dissemination efforts	1. Local teacher requests for guides as provided in I-C-E CAP checklist on file. 2. No activity on record. 3. Five Press-Gazette articles on various I-C-E activities on record. 4. All letters requesting project information or ordering materials on record.
Staff		
R. Warpinski R. Kellner G. Howlett		
Time		
June, 1975		

VI. PROJECT CONTINUATION - Performance Objective

During the 1974-1975 year, staff will continue to explore local, state, federal and private foundation sources for project continuation funding for any or all project components and at a level consistent with project service capacity and demands in Area "B". Measurement of this objective will be evidence continued funding of project operations. (With/Without such continuation fun Project Director will file an "End of Project Period" report within 90 days of termination of E.S.E.A. Title III funds.)

VI-A Process Objective - Project Continuation

Between July and December 1974, Project staff will develop a local continuation rationale and approach all area public and non-public school administrators to determine interest and continuation funding support for any or all project service components.

Activity	Outcome	Monitoring
Develop continuation rationale, approach all area public and non-public administrators	Determine interest and funding level support for Project continuation from local schools and districts	1. "Put Your Inservice Bugs on I-C-E" brochure developed; letter drafted, other materials sent to: a) 114 area administrators-six CESA areas, February, 1975. b) All public and non-public school principals. c) All area public school board presidents. d) All former teacher committee members. 2. Contract Service Unit contract form prepared, March, 1975, letter sent to all six CESA area administrators.
Staff		
R. Warpinski R. Kellner		
Time		
July-December, 1974		

VI-B Process Objective - Project Continuation

During the 1974-75 Pro[illegible] year, staff will conduct activities in support of state legislation, [illegible] the auspices of any appropriate state agency, to provide for a state [illegible]onmental Education Plan including continued regional project service ope[illegible]ons.

Activity	Outcome	Monitoring
State legislative program promotion	Legislation giving statutory provision for environmental education and incorporating regional EE Centers	Minimal input to Wisconsin Environmental Education Council draft of EE Plan for Wisconsin. No legislative activity possible this session--state financial crises and budget review precluded such activities.
Staff		
R. Warpinski R. Kellner		
Time		
1974-75 Project year		

VI-C Process Objective - Project Continuation

During 1974-1975, Project staff will explore other federal and private foundation sources for funding with alternate or ancillary program proposals that would support or supplement general regional project operations.

Activity	Outcome	Monitoring
Explore funding sources from federal agencies or private foundations	Identify possible funding sources for the purpose of submitting alternate or ancillary program proposals for regional project continuation	April 25, 1975 Developer/Demonstration proposal submitted to USOE, Title III, Section 306. May 14, 1975 Dissemination Review Panel submittal passed/approved. I-C-E eligible for national dissemination.
Staff		
R. Warpinski R. Kellner		
Time		
1974-1975 Project year		

VI-D Process Objective - Project Continuation

Evaluation of this objective by Project staff during 1974-1975 will be evidenced by records of activities pursued at local, state, federal levels and with private foundations, and the success/failure to realize a funding source for project continuation.

Activity	Outcome	Monitoring
Evaluation of continuation objectives by records and	Success/Failure to identify continuation funding source	I-C-E RMC will continue operational under a self-supporting system of fees charge for items circulated; I-C-E curriculum materials available to area teachers according to price list schedule. A CETA program employee will continue as clerk for the RMC. - - - - - Under Title III, Section 306, I-C-E funded for $65,000 to act as a Developer/ Demonstration Project for national dissemination.
Staff		
R. Warpinski R. Kellner		
Time		
During 1974-1975 Project year		

VI-E Process Objective - Project Continuation

Upon termination of E.S.E.A. Title III funds in June 1975 and within 90 days following, Project Director will file an "End of Project Period" final report with the Coordinator, Federal Programs, the Wisconsin Department of Public Instruction.

Activity	Outcome	Monitoring
File "End of Project Period" report	Completion of Project objectives and information on successes/ failures available to local, state and federal agencies. Provision for dissemination.	Final report will be filed on/about September 30, 1975.
Staff		
R. Warpinski R. Kellner		
Time		
Within 90 days, after June 1975		

Please rate by circling the number from "1 - low" to "5 - high" those sectional programs you attended, the displays you visited, and the films you viewed, as well as some general fair reactions:

I. Sectional Programs

1 2 3 4 5	(3.0)	Upper Miss. Eco-Center (Sub)
1 2 3 4 5	(2.6)	Calif. Urban EEE Prog.
1 2 3 4 5	(4.7)	Fla. Model EE Program
1 2 3 4 5	(3.5)	Atlanta, GA EE Prog.
1 2 3 4 5	(3.5)	EE Problem Approach UWGB (Sub)
1 2 3 4 5	(4.4)	Iowa Handicapped Center
1 2 3 4 5	(3.1)	Kentucky PEECE Project
1 2 3 4 5	(4.1)	Louisiana Arts Program
1 2 3 4 5	(3.9)	Maine EE Project
1 2 3 4 5	(3.6)	Massachusetts Audubon
1 2 3 4 5	(3.5)	Minnesota ES Foundation
1 2 3 4 5	(3.9)	New Jersey State Council
1 2 3 4 5	(3.5)	New York ECOS Institute
1 2 3 4 5	(3.1)	Ohio Environmental Inst.
1 2 3 4 5	(4.2)	Oregon CATCH Project
1 2 3 4 5	(4.3)	Vancouver, BC VEEP Proj.
1 2 3 4 5	(4.5)	Washington EE Cur. Proj.
1 2 3 4 5	(4.2)	Wisconsin Project ICE
1 2 3 4 5	(4.1)	Project M-E-E Wisconsin
1 2 3 4 5	(4.0)	From The Sidewalks TREES W
1 2 3 4 5	(3.3)	Wyoming Lander Conservation

II. Displays

1 2 3 4 5	(3.7)	
1 2 3 4 5	(3.5)	
1 2 3 4 5	(4.5)	
1 2 3 4 5	(3.6)	
1 2 3 4 5		
1 2 3 4 5	(4.6)	
1 2 3 4 5	(3.4)	
1 2 3 4 5	(3.8)	
1 2 3 4 5	(4.0)	
1 2 3 4 5	(4.1)	
1 2 3 4 5	(3.7)	
1 2 3 4 5	(3.4)	
1 2 3 4 5	(4.2)	
1 2 3 4 5	(4.0)	
1 2 3 4 5	(4.2)	
1 2 3 4 5	(4.0)	
1 2 3 4 5	(4.0)	

(Additional Displays)

1 2 3 4 5	(4.0)	United States Forest Service, Milw.
1 2 3 4 5	(3.6)	Environmental Protection Agency, Chicago
1 2 3 4 5	(4.0)	Concerned Households, Green Bay
1 2 3 4 5	(4.0)	Wis. Department of Natural Resources
1 2 3 4 5	(3.9)	Wis. Educational Communications Board
1 2 3 4 5	(3.7)	Master Plan for EE, Milwaukee
1 2 3 4 5	(3.2)	Upper Mississippi Eco Center, IL
1 2 3 4 5	(3.8)	Wilderness Encounter, Milwaukee
1 2 3 4 5	(4.0)	Project SPICE, Janesville, Wis.

III. Films

1 2 3 4 5	(3.3)	"Later...Perhaps"
1 2 3 4 5		"Hey, Look at This" (N.A.)
1 2 3 4 5	(3.7)	"Urban Sprawl"
1 2 3 4 5	(3.1)	"Project SEE"
1 2 3 4 5	(4.0)	"We Can Make It Happen"
1 2 3 4 5	(4.2)	"Cry of the Marsh"
1 2 3 4 5	(4.0)	"Voices"
1 2 3 4 5	(4.0)	"Wisconsin Air"
1 2 3 4 5	(3.3)	"Discovery"
1 2 3 4 5	(3.7)	"Come Learn With Me"
1 2 3 4 5		"EE, A Beginning" (N.A.)
1 2 3 4 5	(4.4)	"The Gifts"

IV. General Reaction to Fair Concept

1 2 3 4 5	(4.1)	A. Was the information gained useful/valid?
1 2 3 4 5	(4.3)	B. Was the Fair well organized?
1 2 3 4 5	(4.0)	C. Did the Fair options meet your interests?
1 2 3 4 5	(4.1)	D. Was the Fair a worthwhile inservice experience?
1 2 3 4 5	(4.0)	E. Has the Fair stimulated you to teach environmentally?
1 2 3 4 5	(4.2)	F. Were the facilities adequate?
1 2 3 4 5	(4.2)	G. How would you rate the Fair overall?

Check your status: 4 Student, 161 Teacher, 45 Princ., 13 Admin., Other (specify) 35

Please add comments on back.

NATIONAL ENVIRONMENTAL EDUCATION FAIR - PARTICIPANT EVALUATION

EVALUATION COMMENTS ON

NATIONAL ENVIRONMENTAL EDUCATION DISSEMINATION FAIR

Better signs in basements. Much too confusing and to easy to get lost.

I would like more sectionals--and materials usable for primary children.

Didn't have time to see much of the displays. Not much material seen for primary level.

I would have liked at least one more sectional, if the participants could have managed it.

Excellent opportunity.

A great Fair!

A really great experience!

Impossible to cover enough in limited time.

There are a million things I feel are more important for a teacher to do immediately before school starts. I feel it is all-important but not during inservice.

Really great!

Iowa Handicapped Center - Excellent!
Louisiana Arts Program - Good but not environmentally oriented.

There were just too many choices and you spread us too thin.

Would like to see these fairs continued. However, give participants opportunity to attend for two days at increased registration fee. Time for sectionals, exhibits and films too short. Time of year not good, we are in our school year--2nd week started--pressing to get away. October would be better for our school system.

The organization of exhibits and facilities was poor--too much time spent searching for things you wanted to see and hear.

Very difficult to find your way around. Presentations were scattered. I must have walked into six different dead-end nooks trying to find my way around. Fair should have been centralized in one building.

We should have had the program ahead of time. Wasted too much time deciding and then finding.

Very good. Most presentations offered very practical suggestions. Thank you!

The programs should be timed over shorter periods allowing one to visit more places. In keeping with the trend of conserving energy they could have turned off (or down) the air conditioners.

This was a day well spent and very educational.

The things that I attended didn't really get into very much of what I expected after reading the short description in the program. The EE Problem Approach (UW-GB) Sectional was quite unorganized with little to offer. Also, there were so many people crowded around the displays that it was difficult to see anything. Needed more room for each display.

Very worthwhile experience overall. (Lunch box satisfactory, all agreed.)

Displays were all adequate. The films were not shown early on Tuesday morning.

All displays good!

Difficult to tell from project descriptions what the presentations will actually cover.

Places were hard to find, if not acquainted.

Room areas too small and crowded.

Excellent!

One day's attendance isn't enough. The fair has so much to offer that a person could spend several days try to see and do everything of interest.

I hope there can be more of this thing done.

Was very confusing the way the rooms are marked. Maybe some way of marking what is down each hallway?

Excellent fair. Just wish I had more time to see more presentations.

Most useful and educational inservice I have ever attended.

The room for the Louisiana Art Program was too small. Many people had to be turned away or had to sit on floor or stand.

Needed larger rooms to accommodate crowd.

EE Problem Approach too long. Some rooms too crowded. Don't remember displays for evaluation.

Outside noise (New York ECOS) was extremely disturbing.

Allow larger rooms for sectionals! We sat on the floor! Very good and quick lunch. Good overall background as well as specific strategies presented.

Rooms too crowded. Larger classrooms should have been available.

I wish the day had been longer so I could have taken in more of the sessions. I appreciated that enough time was given between sessions. Hosts were very helpful in finding directions.

Locating of directions for various rooms was inadequate.

Rooms too small!

Should have had provision for more space or more sections on Louisiana Arts Program. Very crowded!

Crowded rooms.

I was very impressed with the many ideas in the Louisiana and Iowa sections. I have discovered that much of what I have been teaching is called Environmental Education. Of course, primary teachers usually do teach by having the kids doing.

Louisiana Program both comprehensive and helpful.

Rather difficult to find my way. Excellent location.

ICE material and program exceptional.

Excellent.

Louisiana - Excellent.
Iowa - Excellent.

The Oregon CATCH project is, of itself, excellent. As a lesson for us, we were just inactive listeners.

Future environmental education fairs should have accommodations for presenters to see and be involved in more sectionals.

Box lunch? $1.50? Try again! On a one-day basis, there was too much happening at once. Those giving demonstrations should be cautioned to: stick to the point, aim presentation at all persons present and not to make statements such as, "Science has nothing to do with the environment or its study". How grossly ignorant!

Louisiana Arts Program was very comprehensive.

It was difficult to understand the displays unless you could spend time reading all their info.

Very good!

I felt this was a worthwhile day. I collected a lot of practical information and ideas. It was well organized and offered a variety of very good speakers.

Should have received programs in advance so could plan where to go!!

Day too short.

Louisiana Arts Program - sold out everytime!

One suggestion - Designate some sectionals purely secondary and specific courses, like biology, chemistry, etc. so some concrete ideas could be thoroughly discussed by people in specific fields.

A very good inservice program.

Thanks.

Some of lecturers did not adhere to schedules! Two of the sections were overflowing into halls--Project ICE and Louisiana Arts Program--unavailable unless you wanted to sit in halls.

Wisconsin DNR could have had much more information. Most presentations were directed to general audiences when they were specific: As a high school teacher I resent being trapped in a discussion of kindergarten teaching methods. Plan more intensively and hold it again next year.

Two of the sessions were overcrowded and I wasn't ahead to get in. The time schedule was not adhered to.

I found some of the lectures full and an afternoon session began previous to the time stated.

Some rooms small.

For Environmental Awareness Through the Arts--room far too small. Many disappointed.

As a Green Bay teacher, I would say I'd gain just as much in one-half day as I did in this full day. The other one-half day I could have prepared to apply it in my teaching.

Rooms too small for sectionals and scattered out all over. Operational procedures excellent. A very worthwhile day for me, I feel the people who planned and organized this event did an excellent job.

When a morning session proves to be very popular and worthwhile, a larger room should be provided for the later-in-the-day sessions. For instance, the Louisiana Arts Program was filled to capacity in the P.M. and many interested persons were turned away, including us.

The programs were too spaced out. The timetable was too long. I would have liked to have seen more programs but there was an insufficient amount of time. The presentations, however, had a wide variety as well as solid, useful ideas.

There wasn't enough for just primary children. Though it was all interesting, I spent much time listening to and viewing things I cannot use in kindergarten.

Room too small to seat everyone.

Regret that Alaska's and Indiana's sections could not be held. Perhaps a 3-day span would have been more accommodating. Some sessions were just too crowded.

The young men who presented the topics I attended were excellent.

Two rooms were filled too soon--missed sections, no room. Films were on time, no change from comfortable schedule--except Come Learn With Me ended too soon. Box lunch--good idea.

Next time ask us to do a presentation! (on materials and approaches for adults). (from United Auto Workers Environmental Ed. Specialist) A number of interesting projects were presented esp. Florida, Minnesota ES Foundation, Mass. Audubon. We definitely need info--training for adults. Naturally I am concerned about involving industrial urban workers in problem-solving in urban environmental problems. Will send results next year. I was especially impressed with two trends:

1) Students involvement in communities--please don't overlook the UAW as a helpful resource.
2) The many and various efforts to evolve different creature environmental education experiences all over the country.

Also glad values clarification is getting in--but environmental education needs more politics and economics in it.

Truly enjoyed today. This day may make tomorrow better!

Well planned and excellent timing to draw such a gratifying crowd. The broad scope of visibility made it burdensome and impossible to see the whole fair but because of the exceptional attendance the sectional programs were filled to capacity, and all I attended commanded deep interest from the audiences so I rate the Fair a tremendous success and will recommend similar activities in other sections of the country.

E. E. FAIR
1927 Main Street
Green Bay, Wis. 54301

PROJECT/PROGRAM PARTICIPANT EVALUATION

of the

National Environmental Education Dissemination Fair
August 27-28, 1974 UW-GB Campus, Green Bay, Wis.

Please rate from "1 - low" to "5 - high" the following items relating to your participation and experiences at the fair:

1 2 3 4 5	(4.5)	1. Were pre-fair communications clear and sufficient?
1 2 3 4 5	(4.4)	2. Was pre-fair planning time adequate?
1 2 3 4 5	(4.4)	3. Did the final program publication represent an adequate national cross-section?
1 2 3 4 5	(4.1)	4. Were the fair facilities adequate for your program requirements?
1 2 3 4 5	(4.8)	5. Were you satisfied with the number of area teachers in attendance?
1 2 3 4 5	(4.4)	6. How receptive did you find the teachers in attendance?
1 2 3 4 5	(3.3)	7. Did the fair program schedule give you adequate time for inter- and intra-action?
1 2 3 4 5	(4.6)	8. Were fair social opportunities adequate for project interaction?
1 2 3 4 5	(4.6)	9. How would you rate this EE Fair overall?
1 2 3 4 5	(4.8)	10. How would you rate this EE Fair medium as a dissemination strategy?

Please add any comments on the back. Thank you.

FOLLOW-UP EVALUATION
NATIONAL ENVIRONMENTAL EDUCATION DISSEMINATION FAIR
August 27-28, 1974
Green Bay, Wisconsin

EVALUATION SUMMARY

A. On a scale of "1" - none, "2" - some, "3" - much, and "4" - very much, please circle your responses to the following items:

	None	Some	Much	Very Much	
(2.2)	1	2	3	4	1. Were you teaching environmentally prior to the National EE Fair?
(2.8)	1	2	3	4	2. Did the National EE Fair provide you with useful ideas on teaching environmentally?
(2.2)	1	2	3	4	3. Have you incorporated into your instruction any of the ideas presented at the EE Fair?
(2.5)	1	2	3	4	4. Did you obtain any environmental materials from projects represented at the EE Fair?
(2.1)	1	2	3	4	5. Have you incorporated into your instruction any of the materials acquired as a result of the EE Fair?
(2.6)	1	2	3	4	6. Did the National EE Fair help stimulate you to teach environmentally?
(2.8)	1	2	3	4	7. Would you like to attend another EE Fair as part of an inservice program?

8. What aspect of the EE Fair was most commendable?

Displays, there was variety of material available. 39

I'm a 1st year teacher so I found all of the information and concepts very exciting. I liked the idea that the fair centered around only one area - Using the envirnment. I found the displays and exhibitors very helpful.

The way it was very wide spread information.

Movies 6

Lecture on 10 min. field trips. 8

The class sessions I thought were very enlightening. The time seemed to go by very fast. The instructors were well versed in their areas.

Dr. Deon Dennetl presentation.

The presentations I viewed were excellent well put together. But there wasn't much in my field - music.

The seminars which shared what was actually happening in other schools.

A presentation by Chuck Wester who I believe taught mentally retarded children in Iowa. He gave us very useful project ideas and showed slides. He had many of the projects on display and was a very dynamic speaker.

Sectional on making various materials and crafts.

The various stands and exhibits, free samples and the art ideas.

Art Louisiana. 4

I was looking for environmental teaching for art and found some very good material. 2

Organized well. 11

Chance to meet and talk with people.

Many things going on.

Many activities to select from.

There was a variety to choose from. 11

Project from Iowa with the center was very practical and friendly.

There was a lot of free literature. 15

New material shown. 2

ll the displays were in one area and we could compare on project with nother. We could see what or how problems were handled in different tates.

Attitude of the people involved. 2

Fair was well done and useful.

Lunch 2

Group session. 6

Available information 2

Presentations 2

Sectional meetings 3

On schedule and interesting. 2

Facilities

The booths, and chance to see ideas from other areas of the country.

The fact that it was so accessible, including so many choices and fine presentations.

The opportunities that were available to us.

Wisconsin displays and materials, maps, etc. Films were good - (These should belisted and made easily available for classroom use.

Dr. Richard Presnell's EE Problem approach.

Film Festival. Some were excellent.

Everyone was so friendly and helpful. They were willing to share.

I enjoyed seeing several of the projects actually done by students in schools.

I attended a session sponsored by 2 men from the state of Washington in which we set up classroom activities. It was very valuable.

Environmental awareness thru the Arts.

Helpfulness of your experts.

Wide variety of programs presented.
Things going on continuously.

Actual outdoor demonstrations of teaching techniques and motivational techniques.

You managed to get many good people who were able to talk to both primary and secondary and tie it in so everybody left with something learned.

The wide variety of activities going on through out the day. I think each person found something of interest.

The speakers - their enthusiasm and willingness to share environmental teaching.

[illegible]e diversity.

It was very informative, the small group meetings were very specialized according to your interest.

The actual demonstrations I saw and took part in.

The fact that we were able to hear about projects first hand from those directly involved.

I enjoyed the day very much.

Areas of concern - so many I wanted to attend but couldn't.

I liked your choice of Faculty. They all filled their positions so well.

Displays, Sectionals at primary level.

All program presentors eager to help patience and time for just me.

The areas of art and humanities as related to Environmental Education.

Many things going on.. 2

The quality of the speakers. Their most background and knowledge.

Availability of materials, resources and ideas.

The people presenting their programs that I attended were vitally interested in their subject and their audience. There was audience participation. The audience had an excellent variety to choose from. This must have required excellent planning.

The sessions and displays were excellent. Provided many ideas to be incorporated into my program. Project catch was extremely impressive.

It was interesting to see how environment affected teaching in different areas. Depending on needs. Many areas had extremely interesting materials to offer. Also, I'm glad food was available right there.

Presentation by David Langhans. 2

The personnel and their efforts to make the fair a success.

The bringing together of educators in a venture of this sort and the opportunity it provided those who attended.

Hand-outs, I received many valuable units.

The quality of the presentations varied, some being of much broader scope and supplying more usuable materials.

The small seminars involving these people use of material in their classroom. Milwaukee Public Schools booklet.

Those materials which should be used directly in the classroom.

Review materials and programs.

A lot of practical, useable ideas - especially for upper elem. and higher learning classes.

Presentation by Dr. F. J. Thompson, Project ECOS, Yorktown Heights, N.Y. 10598.

Talking with people in the displays.

Some excellent films was shown, and some of the people from out of state had terrific programs.

Getting the teachers involved.

The broad scope of ideas in teaching environmentally.

I found it most useful and worthwhile.

The presentation by Mr. Joseph Whitcomb "Trees for Tomorrow." 4

Florida presentation was outstanding.

The tables that were set up on how to teach K-1st ecology, were very good and so were Mr. Danaghan displays in order to help the Handicap,

Individual programs aimed at different areas of interest.

Difficult to recall after half a year.

Total commitment by national organization to be in Green Bay, Wisc. for the "Fair".

The Oregon presentation helped me.

The actual presentation of ideas in a workable school room atmosphere. It is easier to use materials after one sees them in actual use.

Your time and efforts are greatly appreicated. It was a most worthwhile inservice.

Excellent range of topics.

The difference in the number of programs open to the individual was great. I just didn't get to all that I wanted to.

There was actually none that were not valuable in some phase or other.

The great variety from all sections of the country - from K-12.

A rich variety of ideas from many parts of the country helped us know what was going on other places and how far we had come.

I thought the fair was a fantastic way to begin a new year. There was so much to do that it was hard to decide which presentations to attend. Please continue to have these fairs. They're great!

General format, organization, variety, generosity and hospitality.

Special sessions and movies. Very, very impressed with "The Marsh" film.

Sectional were well organized and more informative than most I have attended. Information was directly applicable to class situations.

I enjoyed it all immensely. Lots of good ideas.

Live demonstrations of how we can actually use these ideas in the classroom - e. g. Mrs. Smith from Baton, Louisiana.

Mr. David M. Lanaghan and Mrs. Carol Smith, displays. 2

Although the displays were nice, some of them were repetitious and pretained only to one area - Miss Varkey - Discussions were good.

The general program and the obsence of having to attend certain programs. The free choice of attending anything of special interest to you.

The EE Fair was planned very well. No small details were left to chance. Everything was accounted for in the pre-planning stages. Also, a variety of sectionals was good.

First hand information on existing environmental programs.

The variety of areas represented, the practicality of the individual workshops, and the warmth and hospitality of the personnel.

Discussion sections which were available by choice. Booths, displaying-materials were interesting and stimulating.

The exhibits and the programs I attended which used examples of environmental teaching.

The chance to get useable ideas to bring back to our classrooms. Also, a chance to see several speakers and hear their ideas.

I enjoyed having time to preview the fine selection of films on the environment that are available.

I enjoyed the practical exercises, we did in most classes.

Hearing the different ways in which people of different area's have worked with the environment materials in different part of the states.

Having actual teachers in the field of environmental education giving the program.

I enjoyed having the actual presentations done by the people who were teaching EE in other areas. They knew children!

The amount of research and the availability of resource materials was staggering. The implementation of art media, illustrating ecology was also most unusual.

The vast amount of materials available to assist teachers.

Ideas of other school systems and states projects.

Caliber of speakers.

The caliber of the source personnel and the general organization - the lunch was good, too!

The fact that programs were repeated through out the day so that we had a chance to hear and see those were interested in.

Having an opportunity to see the scope of EE in the U.S.

Viewing exhibits and listening to speakers, got me "excited" about teaching environmentally and made me more aware of teaching ideas.

Two sections - Both related methods, resources.

"Trees for Tomorrow" program, and Mr. Lanaghan for handicapped and others, too!

The flexibility that allowed teacher to attend meetings of their choice. Also the abandance of materials available to teachers. 4

The abundance of materials.

All of the sectional presentations I attended were excellent.

Information was presented in a very interesting manner and seemed quite useable.

Variety of interesting projects from around the country. This lends new insights.

The many varied programs to choose from gave a wealth of wonderful ideas.

All of the workshops I participated in were excellently. I found them much more rewarding than the exhibits.

The lesson plans of various instructors were helpful. The ecological art, displays gave me some good ideas.

Some of the various films which were presented were quite interesting as were the displays of assorted interests.

The many different areas and people who presented their veiws about the environment.

9. What about the EE Fair was least commendable?

Long speeches which became rather monotonous and very repititious.

I felt some of the activities were poorly organized.

It was sometimes impossible to determine where the fair left off and U.W.G.B. classes began.

Some meetings were short and uninterestingly approach by the presenter. 2

Being able to locate the classrooms. 10

To crowded, some programs needed larger space. 26

I signed up for more information and materials at many of the booths and only received materials from one! 3

The distance between the meeting rooms. 7

Lunch! 11

The scheduling. 4

the Classes were too repetitious. 2

Not enough time. 17

Too many stations to choose from - couldn't take advantage of all I wanted too.

Displays. Most are difficult to understand unless you sit down with all of their materials and read and study for an indefinite period of time.

Take map showing directions.

Seemed to be scattered over too large an area.

Some of the sectionals had very exciting projects but were not presented well - mostly too long.

Not enough group meetings relating to topics that were environmentally for high level groups.

All had values

The booths seemed hurried.

I would sooner do an evaluation right after (at least a month later or so) but not four months later.

So much at once - Hard to find what you wanted. Took awhile to get organize and find what fitted your needs.

Nothing really in the area of distributive education.

Poorly prepared presentations or only administratively presented projects.

Exhibits trailing all over the place.

Some of the films you showed were quite unusual. "Trees for Tomorrow" had a speaker who I felt had a tendency to knock education and educators. This was the wrong group to do it with.

Nothing for the Business Education area.

I really would not be able to answer this as I think back. I was just very impressed with the whole set up.

I didn't feel that there was any programs and saw a waste of time.

Too long, we were all concerned about getting our classrooms ready for school.

I felt the fair was well done and useful to a classroom teacher but being a special teacher I did not feel I would incorporate this into my program to any extent.

The sectional meetings.

We were given an incorrect starting time (from our administration) and arrived much too early.

Lecture type meetings.

What about Special Education?

Too long!

I don't know if this is least commendable but it was a problem - the finding of the speakers and project leaders - they were so scattered and one spent so much time looking and arrived late. Perhaps guides could be stationed around more so to help.

Conflicting scheduling of presentation sessions that were of personal interest.

Should have more displays, free materials that can be used.

Too long a day - perhaps 2 half-days would be more suitable - keep the observers fresh.

A few of the presentations such as Minn. Environmental Foundation was not attrative.

Timing and presentations of more ideas on the application of physics and chemistry "specifically" enviromentally.

Too many exhibits that did not pertain to K-1.

Not really enough information on art and humanities.

Personally, I was pleased with my entire day and consider it the most commendable inservice I've ever attended. I had one regret. I could not get into the art program though I made every attempt. Perhaps teachers feel a need for more art help and you could double up and have several good programs in that area.

Having to send away for materials. If they could be available immediately, more carry through would have resulted.

It took away of our precious preparation time before school started. More displays.

The location - far side of Green Bay.

I found all of the exhibits just fine.

Some of the out-of-state presentations.

One of the speakers I heard was unprepared and didn't provide any concrete or pratical ideas.

I enjoyed it, although I don't have the time during the day to incorporate into my schedule all, I wish I could of E.E.

It appeared to me that there were many people at the fair who were merely fulfilling an obligation (i.e. required through their pre-school inservice) but were not sincerely interested in environmental education. I would suggest that you encourage school districts to make attendance optional thereby assuring more interested participants.

Some of the programs seemed so great that it is frustrating not to be able to get Green Bay to implement them. ($ and people)

Less time would be preferred. ½ day session of material, ½ organization of material.

I liked it very much as it was.

Poor pre-information as to what to expect. We should have studied the sheets.

Too many suppliers ran out of material and we had to wait a long time for some of the material.

I am sure you could not know ahead of time which groups would fill. I missed two scessions. I would like to have attended but they were all full.

I can't say there was something I didn't like because every display represented gave me some new ideas. I think you should have more displays on teaching the handicap, using multisensory approach or teaching.

Delays.

My field (ART) was not well represented.

It would have been helpful to have had more information about the meeting before we attended the meeting.

Some of the presentations were of mediocre quality.

Easy access to materials. Lack of organization in programs.

Geared almost totally to elementary level.
Sure a great deal of paper waste for an environmental fair.

It carried out prior objectives.

I wish there were more projects for K-3 age children.

The different meetings closed or filled up so fast that many times a shedule had to be rearranged.

Was not the best d.y for us.

The 2 speakers I listened to needed to include more practical application.

A full day was a rather long time.

Perhaps a more open area for group sessions and displays.

Many booths ran out of free materials. Some more materials and ideas for primary children.

Try to keep separate the H.S. from JR. H.S. and Elem. that way secondary teachers need not waste some time looking at programs not pertaining to them.

The films. 3

10. Any other comments:

Do the follow up evaluation at the end of the first quarter of the school year instead of the second quarter.

Very well organized.

I hope there will be more!

Very worthwhile program. Hope we repeat it this year.

Lots of interesting material I could use with my Special Ed. Classroom. Didn't receive all the material I sent for. (ordered).

I especially appreciate the interest of ICE in helping in any way you can. Lesson plans, newsletter, contact and in-service. Thanks so much.
Sr. Ann Rehrauer

Elementary music does not offer as many opportunities to incorporate environmental ideas as perhaps other subject areas do. However, as citizens, this is most important to all of us. The EE Fair was a most meaningful day.

I misplaced my program and couldn't for the life of me remember the title to the delightful film, but sad, of the little duck being pursued by giant bull dozers etc. Would you please let me know the title and where I can obtain this film?

I'm a H.S. Librarian - I collect your information sheets, materials, etc. for the file, so in that sense, I teach.

Very generous of UWGB to provide such extensive facilities of time and space.

More room could be given for demonstrations.

Really fine fair!!

Find larger areas for the presentations. We couldn't get in.

Very worthwhile day. Many new areas were opened to me.

Lets do it again!

Very informative and well organized.

I wish there was more material there to buy on the spot instead of waiting 2 or 3 months to get it.

I would like to see another such fair geared especially to the needs of secondary teachers. (9-12) (Mathematics oriented)

The displays were already down by early afternoon. We could get around to see them all.

The reason I have not used more materials and ideas is that I am a physical education teacher. I have however, may plans when we are outside in the spring.

I feel we've got enough information and materials - but we need more doing in the field.

This was indeed the high-light of our in-service.

Very worthwhile and should be repeated!

More time, so we could take advantage of more sessions.

As a speech therapist only Mr. David Ranoghan's presentation was of interest to me. It was an interesting experience at the fair but it didn't enrich my knowledge in the field of speech therapy that much.

I felt it extremely worthwhile for our staff we would most likely attend another.

Hope to be able to attend another fair like this next year.

Took a long time, when our time was needed badly in the classroom.

More repeating sessions.

Thanks for the presentors addresses.

My admiration for the single person responsible for the entire fair.

The day was most pleasant. I just wish I could have used it more wisely.

Did not feel it was necessary to spend the entire day at the fair. My interests were covered in ½ day.

I seem to need more concrete interaction with other teachers, like building things - actually doing it!

Very good project, suggest order forms be available at all projects for ordering also that materials be available that are ordered.

Very nice - well informed people.

I would have enjoyed two full days.

It would have been nice to see how more Wisconsin school systems were using outdoor (environmental Ed.) kits and curriculums are fine; however, the actual use is also important.

The displays with ample handouts were excellent.

I'm a Librarian - AV Co-ordinator, therefore, I answered the questions according to the types of materials I ordered for the library.

I commend the people who put so much time and effort into the EE fair. I'm sorry that I wasn't more receptive. During the week of in-service I find it hard to become enthused about outside meetings when there's so much to be done in the classroom in preparation for opening day.

Very fine all the way.

Liked the way it was set. One-half day is enough - (Morning)

ICE projects for some age groups and subjects fit in nationally. Others do not.

For a music teacher, it wasn't particularly applicable - not enough to warrent spending an entire day.

Sorry, I can't comment, I paid my amount, got the tickets but had a death in the family at that time and I did not attend. Sister Julia

I made the transition from being a 5th grade teacher into special Ed. so many of the questions are no longer appropriate.

For a music teacher, it wasn't particularly applicable - not enough to warrent spending an entire day.

I-C-E projects for some age groups and subjects fit in naturally. Others do not.

Liked the way it was set - One-half day is enough - Morning.

Very fine all the way.

Very good.

Speaker on "Handicapped Nature Center" in Davenport, Iowa was SUPER!!

Liked the approaches made through the senses and art (Minnesota & Louisiana).

My area of physical education is somewhat difficult to fit environmental teaching in; therefore, the above scale rating is low.

Since I am a speech therapist very little of the fair was applicable to my area.

I feel most of the ideas are too impractical for use in a classroom of more than 20 students.

Speakers were excellent.

I tried to do too many things in one day. It was difficult to pick and get the most out of the day, not really knowing what one would learn.

Those people involved in arrargements, planning, etc. should be congratulated. They did a fantastic job.

A worthwhile effort for sure.

Best of any meetings I've been to.

As stated in 1st evaluation - more pre-fair notice of what was to be included and a program to better plan time spent.

Enjoyable - Interesting - Relevant.

I am the librarian at elementary schools. I do not have opportunities to teach I-C-E subject material. I can order materials for teachers and encourage their teaching of environmental ideas.

Mrs. Carol Smith was excellent!

I feel the E. E. fair was very successful and informative. I hope to see it again next year.

I enjoyed it very much.

I think it would be worthwhile to have another one.

It was a great day!

Would like to cooperative Ed. Service, establish programs in secondary level in which Ecological or environmental concepts could be presented in the field.

Have a workshop where teachers actually do the various projects. At this point I am not interested - a suggestion for the future.

Being a school librarian I am not directly involved in teaching. I have encouraged the teachers to get involved environmentally.

Should have more free materials to bring back to class for display purposes. ½ day would be sufficient time rather than a full day.

There should be more guides.

Program was basically science and human relations.

I really enjoyed the fair and I came away determined to do more than I have thought I would. I feel you are doing a fine lot of work.

I'd like to see more of this. We don't always get school time in-service; how about offering video tapes of your workshops? (would Newist help)? Timing of fair was also good, and there should be more on-hand material.

I'm finding I'm using many of Chuck Wester's idea because they were alos shown in his handout and seem to be most successful.

Tell us how we can do it in our areas - we can't all go checking out the streams or walking in the woods.

I <u>thoroughly</u> enjoyed the day!

It was a fruitful experience, I would like some materials on a project for natures studies at our school.

It might be better to have this on an in-service day during the year.

Perhaps if the Fair had been planned for a different time of the year, I would have appreciated it more. I had too many things to do in my room at school preparing for the first day!

Would like to attend a follow-up conference during inservice next August. Most rewarding!

There was nothing I could find to use for a class with a reading range from 1st to 9th grade and aged 14-16.

Make it more voluntary.

As a whole I felt the day was most informative and enjoyable. Would really enjoy another one!

It may be possible to have more presentation activities outdoors.

A pleasant day - talked with other teachers about what they were doing with EE.

Very well organized program.

As with any good learning it should become internalized and be a part of our daily living practices. Our realistic test will be how we conserve, share and develop now to provide for a future.

Many aspects of the Fair seemed elementary, perhaps not quite enough secondary level.

Area could be divided into 2 parts - K-Primary and Intermediate. That way the K and Primary Teachers would not have to hunt through the area to find things that pertained to them.

Certainly recommend the fair and will be watching for later developments.

I have heard many people who attended praise your Fair. The preplanning was apparent in the programs with their ease to follow, the lunch, selections, and certainly the University as your site.

Don't schedule all the good films at the same time as the good speakers! The fair was really encouraging.

I'd like the films from CESA on Ecology. We had excellent films last year, but Nancy Tebo isn't at our school for communication.

I would have like to spend more time at the fair but due to our rigid in-service week at our own school I found time a limiting factor.

Next year we will have 2 inservice days and we will need to spend most of it in our rooms for preparation.

Very good in-service - offered a variety - something for every grade level.

The Fort Meyers program was really tremendous!

One of the best Inservices Green Bay Educational System.

Being a principal at Baird. I have based my above answers on the talk I hear from teachers. They thought it was an excellent Fair. I tend to agree.

The best inservice idea I've seen in 18 years of teaching.

Keep it up.

Wish we had been given our general information sheets ahead of time ; a general assembly of groups could have been held explaining fair to achers.

Thought the program was worthwhile but didn't appreciate the box lunch. Room for improvement in that area!

Hospitality and curtesy of hosts and students were excellent. Keep up the good work!

Brought to attention - problems of envimment.

A great idea - marvelous materials - please repeat.

It was excellent!!

Have one next year.

Green Bay Press-Gazette Sunday, April 6, 1975 A-7

You Can Help

I-C-E Fair Reviewed

By Ray Pagel

Press-Gazette Staff Writer

If you take the time to look closely, advises Frank Corrado, you will see that some rather interesting changes are taking place in American education.

For example:

"Environmental education is changing the function of the classroom from a 'learning place' to a 'meeting place' for young people who are very much involved in their community, and what it means to live in that community.

"From kindergarten through high school, kids are beginning to learn about the real world — and they're studying it first-hand — with wet feet, rough hands, cold noses and mud between the fingernails."

Corrado is public affairs director for Region V of the U.S. Environmental Protection Agency. His remarks prefaced a review of what he observed on a trip from his Chicago office to Green Bay last August.

The occasion was the Environmental Education Dissemination Fair on the University of Wisconsin-Green Bay campus, a two-day event that registered 1,780 teachers from all over Wisconsin and numerous other states. With UWGB cooperation, it was an ambitious production engineered by Project I-C-E of the Cooperative Educational Service Agency headquartered here.

Teachers attending the fair became acquainted with some of the best environmental education programs offered in the U.S. and Canada. Robert Warpinski, director of Project I-C-E (Instruction, Curriculum, Environment) and his staff could be well pleased with the results.

A review of projects presented at the fair takes up most of a 24-page special education issue of Environmental Midwest, a widely circulated publication of EPA's Region V.

Full pages with text and photos were devoted to environmental education projects based at Baton Rouge, La.; Lincoln, Mass.; Lynwood, Wash.; Atlanta, Ga.; Eagle River, Wis. (Trees for Tomorrow); Menomonie, Wis.; Upper Montclair, N.J.; Somerset, Ky.; Van Couver, B.C.; Yorktown Height, N.Y.; Portland, Ore., and Fort Meyers, Fla. Briefer mention was made of eight other opportunities for teachers involved in environmental education.

Any such publication is necessarily restricted by space available, but it seems that Corrado or whoever is responsible could have given Project I-C-E a little better than the very scant mention. Warpinski and his crew have developed a unique approach that has received highly favorable reaction from educators and environmentalists.

Commenting on the approach in environmental education, Corrado quoted the reaction of one young boy after taking in a workshop: "They didn't teach me nuthin', I had to learn it all myself."

* * *

NATIONAL ENVIRONMENTAL EDUCATION FAIR - PROJECT/PROGRAM EXPENSE VOUCHER
Project 1-C-E, 1927 Main Street, Green Bay, Wisconsin 54301

Please complete this voucher, one per project or program represented at the EE Fair. Attach all necessary receipts i.e. transportation (other than automobile), lodging, meals (over $2 each, or $7 per day). Return promptly for processing of payment.

Project Name and Address: _____

_____

Names of Project Representatives at the EE Fair: _____

_____

Expenses

Transportation:

a) Round trip plane fare . . . . . $ _____

or

b) Auto: _____ miles @ 12¢ per mile. . . . . $ _____

or

Lodging: Circle dates accommodations used.

8/25 8/26 8/27 8/28 . . . . . $ _____

Meals: B - Breakfast L - Lunch D - Dinner (or $7 per day)

8/25	B - $_____	L - $_____	D - $_____	Total _____
8/26	B - $_____	L - $_____	D - $_____	Total _____
8/27	B - $_____	L - $_____	D - $_____	Total _____
8/28	B - $_____	L - $_____	D - $_____	Total _____

Total Meals. . . $ _____

Total Expenses Incurred $ _____

*Amount of Expenses Claimed $ _____

I certify this claim is accurate to the best of my knowledge.

Project Director _____

Date Filed _____

Authorization of payment

_____

Robert J. Warpinski
Project Director

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*Please consider our memos on projects bearing a portion of their own expenses where at all possible. Thank you.

PROJECT I-C-E SPECIAL SURVEY - JANUARY, 1975

A SUMMARY ANALYSIS

As part of the January, 1975 issue of the I-C-E CAP Newsletter, as a general survey type, there were 173 returns representing eight schools in CESA 3, 12 from CESA 8 and 15 from CESA 9. This constitutes an adequate sample for a summary report. The following points are significant:

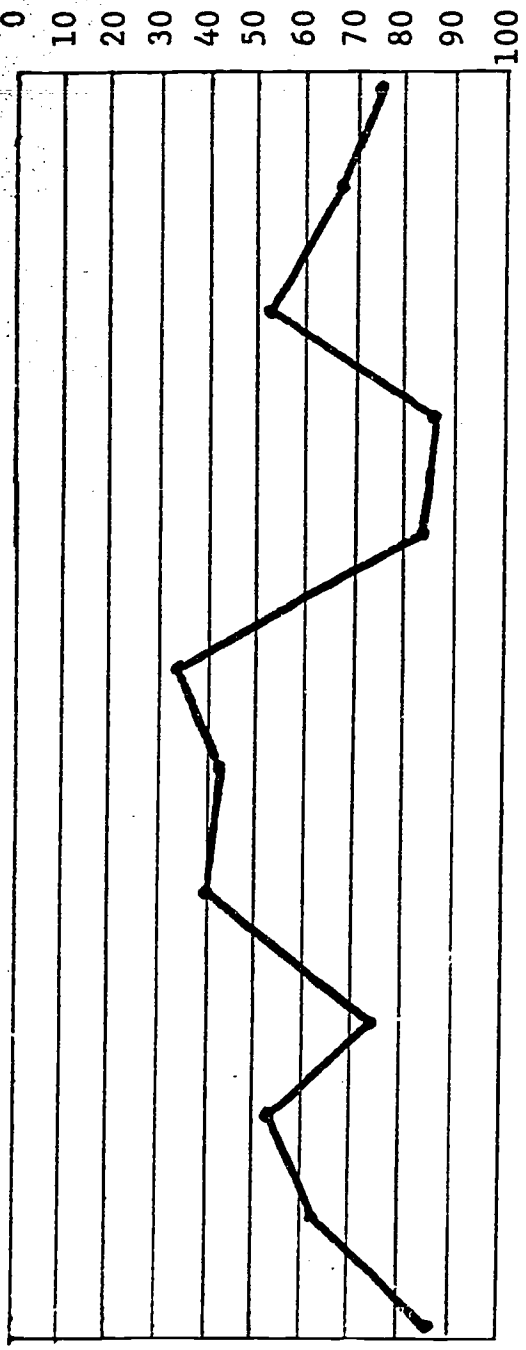
1. In the "know some or all" on service, guide use and staff assistance areas, the 75% to 88% totals reflect a more than adequate dissemination achievement level in the project area.

2. The "good to excellent" categories with ratings of 34% to 74% are a true reflection of the situation as supported by other project data. For example, the 34% total on "use and rating" of I-C-E staff could not be higher, when only one or two professionals are available to work with the area's 7,500 teachers. Also, the 41% on "use and rating" of I-C-E RMC is substantiated by service capacity due to limited number of duplicate copies available for circulation. Interesting also is that the average for all "good to excellent" categories is 52%, and corresponds rather closely to the 54% for item #10 - a check on total service adequacy.

3. The most significant item - #12, on the continuation and expansion of I-C-E Center services, with an 87% favorable response indicates teacher attitude toward the continued need for Center operation. Just as the expected goal of change of attitudes and values on the part of students is viewed as a necessary long-term effort, so the instructional support system must be viewed as requiring a long-term commitment.

All replies received to the "comments" section are a part of this report. With but a few exceptions, they are strongly supportive of the Project operations.

PROJECT I-C-E SPECIAL SURVEY - JANUARY, 1975



Summary of Results

1. Service Availability - Know Some or All	75%
2. Impact on EE - Good to Excellent	68%
3. ICE Curriculum Guides - Good to Excellent	52%
4. Know some or all on use of ICE Guides	88%
5. Know some or all or I-C-E staff assistance	84%
6. Used and rate ICE staff good to excellent	34%
7. Used and rate ICE RMC good to excellent	41%
8. ICE outside activities rated good to excellent	40%
9. ICE Cap Newsletter rates good to excellent	74%
10. ICE total services adequate	54%
11. Believe EE belongs in all subjects	62%
12. ICE EE Center should continue and expand	87%

Average for all items on questionnaire - 63%

PROJECT I-C-E SPECIAL SURVEY, JANUARY 1975

Comments

A. For...

1. Try to make administrators aware of this so we can have time made available to implement this in the classroom.
2. I feel the response of the staff in providing guidance to teachers has been excellent.
3. Just starting to use some of the material found in your newsletter.
4. Stay in business.
5. The A.V. media and manuals have been very helpful. I would not like to see this program discontinued or curtailed in any manner.
6. Our outdoor education program and encampment for 370 sixth graders relied heavily on ICE resource limits and on your consultant, George Howlett.
7. A much needed program.
8. Materials in forestry are very good. I could use more in the area of earth science.
9. Keep up the good work! I'm impressed with the friendliness of the staff. Especially George Howlett.
10. You're doing good work.
11. Having materials available for use by our school has made the largest degree of impact.
12. I'm very pleased with all the help Project ICE has given me. Thank you.
13. Hope to call on you for more resources, etc.
14. Our administration isn't very "I-C-E minded". You are never made mention of at any meetings. One came to me and inquired how I-C-E materials could be ordered. I simply picked up one of your booklets and showed him the procedure you have outlined!
15. Your guides are helpful for ideas and in supplementing in subject areas.

16. Project I-C-E should have an all-out campaign to get the teachers more interested and enthused about I-C-E. You have so much to offer the students and teachers if only made more aware of. Keep up the good work.

17. Many of the resources available to teachers, such as filmstrips, kits, and films are excellent - they have contributed greatly to my classes. Many of the films add that intangible "something" which stirs the "emotional" as well as "values" aspect of environmental problems. This is something that our society and students definitely need to consider. It is also something which is difficult for an educator to attain by himself. This is one reason why Project I-C-E should definitely be continued. With the current explosion of some very fine environmental resources being produced today, I-C-E will also need to expand if it wants to provide the best EE possible. Although I have praise for the audio-visual materials, the curriculum guides have not been as useful. However, the activity sheets developed by Mr. Howlett and other educators seem far more valuable and easier to use. As for the Newsletter, I feel it is usually well done. However, I do have several suggestions that may add a little more to it. I would like to see more information concerning the latest resources available in EE (besides those available from I-C-E) - such as recently developed textbooks, field guides, experiments, etc. that your office is aware of. In addition, teaching tips, crossword puzzles, fun activities, games, and attention-getting experiments could be added to the newsletter from time to time. If environmentally related they could be educational and enjoyable for teachers to use in the classroom. The services of Project I-C-E have enhanced and contributed to my classes. I hope that my comments contribute to your survey. Thank you very much for your services and consideration.

18. I have not used I-C-E plans totally, but I have used some of their projects. Those are very good. They are well organized and informative.

19. I helped on the original writing committee and enjoyed it and learned a great deal. It made me more aware of preserving the environment and slanting <u>all</u> subjects toward environmental education.

20. I enjoy most ideas that have worked for others and evaluation of books and pamphlets.

21. Many thanks to all of you. One of our most successful field trips involved I-C-E materials and in particular George Howlett. The kids loved it and all your ideas are worthwhile for the classroom.

22. I was very pleased with all the materials and services which I have received from the I-C-E project. Thank you for terrific ideas & resources.

    P.S. Try to arrange return checklists on parts of the newsletter so that it won't mean losing good information on reverse side, if possible and still save paper - newsletter is helpful.

23. I have used I-C-E materials - kits, AV guides for three years and find them excellent in content. Keep up the good work and expand, if possible.

24. I am a music teacher, and am very interested in the environment - and teaching about it. However, it is not practical for me to use the I-C-E music materials. Essentially they are environmental concepts using musical skills. This is O.K. - but, as a specialized music teacher with limited time, I have to spend all efforts on musical skills and concepts.

    P.S. But for others, keep up the good work!

25. Increase the program offerings.

26. Project I-C-E is doing a fantastic job! Keep up the good work!

27. I'd like to comment that without continuous effort environmental education will not meet the challenge. One should not be so callous as to forget to pray: "Thank God for the dedicated men and women of Project I-C-E".

B. So-So...

1. I am not aware of all the services available. It might be good to publish them in one book.

2. Many things you have for physical education are pretty hard to put in our curriculum at the present time.

3. Depending how many people are using the environmental education center, I am not and if this is the case in general, it could be discontinued.

4. We find the program difficult to incorporate at times due to the fact that some areas are not practical and too time consuming to fit into the schedule.

5. I think Project I-C-E is doing a great job but with all the curriculum requirements already and our new Chapter 89. I find it impossible to use as much as I'd like. Also, did you know that there is much free material available on weather and environmental conditions through C.D. in Madison?

6. Have never understood divergent ideas between ICE and DPI.

7. Teachers don't know what you have to offer. You could attend a faculty meeting and display your materials.

8. I plan on using I-C-E materials more so next year. Also, it's difficult to plan for A-V materials with such a short checkout time (3 days?)

9. I-C-E Cap is just another mimeo sheet to teachers inundated with mimeo sheets. A different format may help. Consultation services are not advertised or often as freely as they could be.

10. I teach special ed. learning disabilities, how about some low-level material!

11. Your newsletter materials are excellent. There has been improvement in appearance (too much word look; it scares me to start) but more is necessary. Your curriculum guides are very much, much too much "words". We are bombarded with words. When other media would be more helpful in selling a "hands on" project.

12. I'm guilty! I haven't had time to look into it. I'm too busy trying to teach English.

13. One resource you might be interested in is Acclimatization by Steve Van Matre, published by the American Camping Association.

14. Not really applicable to my field.

15. Maybe no expansion needed. We are really not too impressed, about ready to say discontinue.

16. Are there kits for young children? Everything seems to be for intermediate and upper grades.

17. Would like to see longer usage time for films and AV resources as one day usage discourages teachers on modular scheduling.

C. Against...

1. Federal budget needs to be cut. School districts are capable of instruction in this area.

2. I have followed I-C-E closely. I feel the return from the taxpayers' money spent on this program has, at best, been "MINIMAL". Feel free to discontinue the program.

3. They have made their point. To continue spending funds for this in order to keep bureaucracy going seems to be an imposition on the taxpayers.

Appendix "D"

I-C-E
RESOURCE MATERIAL CENTER
USER AND EVALUATION REPORT

Resource	Teacher Rating	Student Reaction	Times Used	Total Students
Film 170	3.7	3.7	40	1,013
Film 180	3.8	3.7	30	1,070
Film 190	4.0	3.7	14	345
Film 200	4.6	4.4	118	3,231
Film 210	4.3	4.5	164	3,445
Film 220	3.8	3.8	109	2,403
Film 230	3.2	3.0	17	389
Film 240	4.4	4.3	149	3,413
Film 250	3.9	3.4	48	2,027
Film 260	3.6	3.4	74	1,957
Film 270	2.3	1.0	3	12
Film 280	4.2	4.1	63	1,325
Film 290	4.0	3.3	9	135
Film 300	3.3	2.6	21	496
Film 310	3.7	2.6	63	1,644
Film 320	4.2	3.9	82	2,017
Film 330	3.7	3.5	62	1,827
Film 340	3.8	4.0	18	458+
Film 350	3.5	---	2	15
Film 360	4.4	4.4	16	356
Film 370	3.3	3.5	34	741
Film 380	3.0	2.6	23	738
Film 390	4.5	4.3	104	2,829
Film 400	4.0	3.2	45	1,196
Film 410	4.6	3.3	50	1,862
Film 420	3.2	3.0	13	332
Film 430	3.1	3.0	24	563
Film 440	2.8	2.6	12	333
Film 450	3.1	3.1	17	531
Film 460	3.7	3.2	30	700
Film 470	3.0	3.0	8	171
Film 480	4.0	2.5	4	118
Film 490	3.6	3.6	19	561
Film 500	4.2	4.8	47	1,676
Film 510	4.2	4.0	96	1,769
Film 520	4.6	4.0	75	2,046
Film 530	4.2	4.3	29	838
Film 540	4.0	4.0	8	213
Film 550	4.3	4.2	34	638
Film 560	2.6	1.7	18	493
Total			1,792	45,926
FS St 1	3.3	---	11	375
FS St 2	3.0	---	2	60
FS St 3	3.0	---	5	140
FS St 4	4.0	---	3	75
FS St 5	2.3	---	3	57
FS St 6	3.0	---	2	42
FS St 7	3.5	---	6	149

Resource	Teacher Rating	Student Reaction	Times Used	Total Students
FS St 8	4.5	---	2	50
FS St 9	3.7	---	14	403
FS St 10	3.0	---	3	168
FS St 11	3.7	---	7	116
FS St 12	2.6	3.0	2	47
FS St 13	3.0	---	1	18
FS St 14	3.3	3.0	7	185
FS St 15	3.0	2.5	3	38
FS St 16	4.2	4.0	16	282
FS St 17	3.5	3.0	3	58
FS St 18				
FS St 19	4.0	---	3	66
FS St 20	5.0	4.0	3	70
FS St 21				
FS St 22	3.3	3.6	2	140
FS St 23	3.5	3.1	12	298
Total			110	2,837
Kit 1	2.7	1.7	9	212
Kit 2	2.5	2.5	4	115+
Kit 3				
Kit 4	3.8	3.8	10	206
Kit 5	3.5	3.5	3	75
Kit 6	3.6	3.3	7	122
Kit 7				
Kit 8				
Kit 9	3.0	3.0	--	---
Kit 10	4.0	4.0	8	131
Kit 11				
Kit 12	4.0	4.0	7	37
Kit 13	4.0	4.0	1	30
Kit 14	4.0	3.7	10	457
Kit 15	3.0	3.0	2	12
Kit 16	4.0	3.5	2	54
Kit 17				
Kit 18				
Kit 19	4.5	4.0	5	37
Kit 20				
Kit 21	2.0	2.0	2	36
Kit 22	3.0	---	--	---
Kit 23	3.0	3.0	--	---
Kit 24				
Kit 25				
Kit 26	3.0	3.0	--	---
Kit 27				
Kit 28	3.6	3.3	5	110
Kit 29				
Kit 30	3.6	3.1	9	225
Kit 31	3.0	4.0	1	90
Kit 32	4.0	3.5	2	110
Kit 33				
Kit 34	4.5	3.5	4	64
Kit 35	5.0	5.0	1	24
Kit 36	4.5	4.0	4	140+

Resource	Teacher Rating	Student Reaction	Times Used	Total Students
Kit 37	4.0	4.0	6	57
Kit 38	4.0	4.0	1	20
Kit 39				
Kit 40	2.5	2.5	5	39
Kit 41	4.0	3.0	10	30
Kit 42	2.0	2.0	3	32
Kit 43				
Kit 44				
Kit 45	3.5	3.2	9	352
Kit 46				
Kit 47	4.2	4.0	20	875
Kit 48	4.0	3.8	13	279
Kit 49	4.0	3.8	11	405
Kit 50				
Kit 51	4.0	4.0	1	23
Kit 52	4.5	4.5	7	141
Kit 53				
Kit 54				
Kit 55				
Kit 56				
Kit 57				
Kit 58				
Kit 59	3.0	3.0	--	---
Total			191	4,540
SG 1	3.0	2.3	11	240
SG 2	4.0	5.0	6	70
SG 3	3.0	3.0	1	12
SG 4	4.2	3.4	41	373+
SG 5				
SG 6				
SG 7	4.0	4.0	1	24
SG 8				
SG 9	3.5	3.0	3	20
SG 10	3.0	3.0	--	---
SG 11	2.5	2.5	2	17
SG 12	5.0	5.0	10	---
Total			75	756

Appendix "E"

Final Evaluation Report

Project ICE

C.E.S.A. #9

Green Bay, Wisconsin

By

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May 31, 1975

Introduction

Project I-C-E is a five year environmental education project located in Green Bay, Wisconsin and funded by the State of Wisconsin under E.S.E.A. Title III. Begun in 1970, the project has developed a series of Supplementary Curriculum Guides for all subjects and all grades, K-12 based on twelve environmental concepts. Each lesson identifies a major concept, provides behavioral objectives, suggests instructional or student activities and lists available resource materials. The program emphasizes flexibility by providing numerous alternatives for each lesson.

1973-74 Effectiveness Study

This pilot study employed a pre-post design with experimental and control schools. Project staff designed a cognitive test based on the program's twelve environmental concepts for each of the grades, 2, 5, 8 and 11. Seventy-five or more students at each grade level completed the pre- and post-tests in October and May respectively. Results of the preliminary study are listed in Table 1. In each of the grades tested, students participating in the program improved more during the year than students in the control school who did not have the program.

1974-75 Effectiveness Study

Another investigation of the effects of the I-C-E program was carried out during the '74-75 school year. Not only were data collected on student cognitive outcomes, but teacher logs were developed and parent and teacher reaction to the program and its effect on students were also obtained by the evaluation staff.

Subjects

A total of 14 northeastern Wisconsin schools provided data in this study, with seven schools classified as Pilot 1, four schools as Pilot 2 and three schools as control. The schools are listed in Table 2 according to this status. "Pilot 1" schools had previously been associated with the ICE project in the CESA #9 District while "Pilot 2" and "Control" schools were outside the CESA district and were new to the program as of Fall, 1974. Pilot 2 schools and control schools are of approximately equal size and seem similar rural communities. All available students were used in this investigation, thereby avoiding sampling difficulties. Pilot 1 schools were more heterogeneous, and contained students who have been involved with the program for several years.

Instrumentation

Cognitive. Cognitive instruments reflecting the 12 concepts of the ICE program were reconstructed for each of grades 2, 5, 8 and 11. These instruments represent major revisions of the tests built for the 1973-74 preliminary study. In addition, questionnaires and monitoring forms were constructed by the project staff and evaluation team for use in the experimental schools. In constructing the cognitive instruments, items were written by the project staff and reviewed by a content expert to verify the accuracy of the information and relationship of the item to the program content. The items were also reviewed by the evaluation team for content and form, as the evaluation team had content as well as

TABLE 1

RESULTS OF 1973-74
PRELIMINARY COMPARISON STUDY

Grade	No. Items	Group	X Pre	X Post	Var.	N.	SE diff	t
2	24	E	11.76	13.94	7.98	77	.4279	3.225**
		C	12.22	13.02	7.62	96		
5	36	E	14.04	23.85	85.76	114	1.0153	11.740**
		C	13.14	15.67	21.74	78		
8	36	E	15.16	17.51	25.31	94	.6908	2.533*
		C	15.95	16.65	26.40	127		
11	36	E	14.22	15.88	50.59	74	1.2005	1.978*
		C	17.57	16.84	53.02	70		

* Significant at .05 level
** Significant at .01 level

Table 2

Schools Participating In
1974-75 ICE Data Collection

Pilot 1	Pilot 2	Control
St. Joseph's	New Holstein	Kiel Elementary
Denmark	Chilton Catholic	Kiel Middle
Sevostopol	Chilton Public	St. Peter & Paul
Notre Dame	Chilton High	
Clovis Grove		
Marinette Middle		
East DePere		

test development expertise. The tests were tried out with samples of 25 students at each grade of similar background to the experimental and control schools. On the basis of this tryout, items were revised or deleted and the test was then given to 100 children at each grade level to collect statistical information. The evaluation team then employed computer item and test analyses. Items were once again revised on the basis of this information, checked for grade level readability by a reading specialist and final forms of the four tests were prepared for the experimental and control schools.

The value of this very careful test development is apparent in Table 3 which lists the descriptive characteristics of the instruments for the experimental and control schools. Reliabilities of all tests were very good; the lowest was .58 for the second grade pre-test. For post-test, all reliabilities were .70 or better in the experimental schools. As ecology tests have proven extremely difficult to construct due to the generality of the concepts covered, such reliabilities are unusually high.

Teacher log - all experimental group teachers were provided with monitoring forms that were to be filled out after the completion of each lesson. The questions asked for the activity used with each lesson, resources and whether or not the objectives were reached by the students. A total of 203 forms were returned to the project. An example is provided in Appendix A.

Teacher reactions - a reaction form was developed and distributed to each teacher during March. All participating 27 teachers responded to the forms. Reactions were obtained on usage of the program, appropriateness to grade level and behavioral changes in students. A sample is given in Appendix B.

Parent reactions - a parental reaction form was developed and distributed to parents in Chilton Catholic Elementary School, one of the experimental schools. Questions focused on familiarity with the program and any behavioral changes that the parents noted in the students. A sample is given in Appendix C.

Design

Cognitive data were obtained from the students using a pre-post test procedure with 6 Pilot 1 schools, 4 Pilot 2 schools and 4 Control schools. Pre-testing occurred in mid to late October and the post-testing in late March and early April. Results of the pre-test were given to all teachers as soon as scores were available.

Teacher and parent reaction questionnaires were administered once near the end of the school year to the Pilot 2 schools. All teachers were utilized and all the parents in one of the Pilot 2 schools were solicitated. Teacher log data gatherer periodically throughout the year by the project staff.

TABLE 3

MEANS, STANDARD DEVIATIONS AND RELIABILITIES OF I-C-E CONCEPTS TESTS

	Pre-test	Post-test	
	Experimental-Control	Experimental	Control
Grade 2 - 29 Items			
N	404	147	130
X	13.16	17.14	15.45
SD	3.91	4.42	2.97
Rxx	.58	.70	.62
Grade 5 - 44 Items			
N	459	163	155
X	17.50	20.57	19.59
SD	4.82	5.96	5.69
Rxx	.62	.76	.73
Grade 8 - 44 Items			
N	527	259	150
X	21.63	24.05	23.38
SD	6.24	6.70	6.33
Rxx	.77	.80	.77
Grade 11 - 45 Items			
N	472	139	122
X	24.29	25.91	26.24
SD	7.33	7.60	7.07
Rxx	.84	.85	.83

Results

Analysis of Variance. Cognitive tests were administered to the Pilot 2 and control schools in midOctober and again in late March and early April. Analysis of co-variance was planned for these data; however, it was not possible to initially complete the co-variance for the submission to the Evans Dissemination Review Panel. Therefore, analyses of variance on post-test scores for Pilot and control groups and on pre-post differences for the Pilot 2 group were carried out.

Results of the analysis of variance are given in Tables 3 to 6. Analyses were run on each of the concepts as well as the total score of each test. In addition, project staff classified items as directly or indirectly included in the I-C-E Curriculum Guides. Because the numbers of items differ across concepts in each test, the means vary greatly between concepts.

Results strongly favor the I-C-E program students in all but the 11th grade. The most striking results occurred in the 2nd grade where experimental students were significantly higher than the control group on total score, direct and indirect items and concepts 4, 7, 9, 10 and 11. The experimental group showed significant increases in scores for all but 4 concpts and the experimental group had a higher mean than the control group for all but 3 of the concepts.

Fifth grade results were almost as positive. Although the experimental and control schools did not differ on total score, the experimental group had a higher total mean. Significant differences favoring the experimental group were found for concepts 1, 6, 9 and 12 and they scored significantly higher on the items directly included in the program curriculum guides. The experimental group showed significant increases for all but 3 concepts and mean differences favored the experimental group for 8 of the 12 concepts.

Eighth grade results were also positive. Total score was again not significant but the experimental group has a higher mean, and significant differences were found on concepts 1 and 10. Significant increases occurred for the experimental group on 10 of the 12 concepts and mean differences favored the experimental group on all but 2 concepts.

In contrast to the 2nd, 5th and 8th grade, there was no evidence of effectiveness at the 11th grade. Only one concept was significant, favoring the control school, and this difference had also occurred on the pre-test. The experimental schools showed no significant increases on any of the concepts. These findings affirm impressions of the evaluation team during monitoring visits that, except for one or two isolated instances, the I-C-E program was not substantially implemented at the 11th grade level. This was, no doubt, due to the fact that only three 11th grade teachers participated, which did not provide the necessary saturation of content. At the other grade levels, all teachers participated.

TABLE 4

2ND GRADE
MEANS AND F TESTS FOR
EXPERIMENTAL AND CONTROL GROUPS ON
I-C-E CONCEPTS TEST
(Experimental N = 147)
(Control N = 130)

Concept	Experimental Pre-test Mean	Experimental Post-test Mean	Control Post-test Mean	Experimental Pre-Post F_a	Experimental-Control Post-test F_b
1	1.26	2.03	1.86	52.33**	2.58
2	2.65	3.39	3.42	25.15**	.04
3	.36	.86	.71	39.54**	3.01
4	1.21	1.81	1.34	33.31**	20.26**
5	1.64	2.09	2.09	20.38**	.00
6	2.36	2.58	2.35	3.32	3.28
7	.59	.75	.52	3.35	7.51**
8	1.06	1.09	.99	.07	1.60
9	3.49	4.08	3.59	9.19**	6.50*
10	1.39	1.97	1.76	32.67**	4.29*
11	1.60	1.79	1.38	3.06	13.95**
12	1.91	2.36	2.19	13.16**	1.71
TOTAL SCORE	13.16	17.14	15.45	62.58**	10.97**
ITEMS DIRECTLY INCLUDED	3.01	3.66	3.13	15.78**	10.80**
ITEMS INDIRECTLY INCLUDED	10.15	13.48	12.32	69.94**	7.91**

* Significant at .05 level
** Significant at .01 level

a All significant differences favor the post test
b All significant differences favor the experimental group

TABLE 5

5TH GRADE
MEANS AND F TESTS FOR
EXPERIMENTAL AND CONTROL GROUPS ON
I-C-E CONCEPTS TESTS
(EXPERIMENTAL N = 163)
(CONTROL N = 155)

Concept	Experimental Pre-test Mean	Experimental Post-test Mean	Control Post-test Mean	Experimental Pre-Post F_a	Experimental-Control Post-test F_b
1	2.42	2.68	2.31	5.15*	10.93**
2	2.46	2.70	2.45	2.29	2.95
3	2.13	2.39	2.41	4.30*	.02
4	1.17	1.57	1.71	13.91**	1.35
5	.70	1.01	.97	19.24**	.31
6	3.61	4.01	3.63	6.45*	4.26*
7	4.23	4.84	4.81	8.65**	.02
8	.89	.96	1.03	.05	.64
9	3.72	4.28	3.85	9.27**	4.79*
10	1.50	1.72	1.53	3.68	2.63
11	2.78	3.18	3.19	5.07*	.00
12	1.30	1.71	1.47	14.29**	5.44*
TOTAL SCORE	17.77	20.57	19.59	19.05**	2.26
ITEMS DIRECTLY INCLUDED	4.94	5.81	5.31	12.18**	4.27*
ITEMS INDIRECTLY INCLUDED	12.83	14.76	14.28	15.34**	.94

* $p < .05$
** $p < .01$

a All significant differences favor the post test
b All significant differences favor the experimental group

TABLE 6

8TH GRADE
MEANS AND F TESTS FOR
EXPERIMENTAL AND CONTROL GROUPS ON
I-C-E CONCEPTS TEST
(Experimental N = 259)
(Control N = 150)

Concept	Experimental Pre-test Mean	Experimental Post-test Mean	Control Post-test Mean	Experimental Pre-Post Fa	Experimental-Control Post-test Fb
1	3.51	3.76	3.39	9.77**	4.64*
2	2.50	2.71	2.61	4.50*	.73
3	2.77	3.12	3.02	13.35**	.54
4	2.39	2.78	2.69	25.72**	.60
5	2.13	2.20	2.31	2.84	.89
6	1.92	1.96	1.89	1.40	.32
7	5.13	5.48	5.71	8.45**	1.24
8	3.11	3.49	3.34	10.40**	1.21
9	1.34	1.47	1.40	4.27*	.83
10	2.30	2.48	2.15	9.82**	11.86**
11	1.98	2.36	2.24	20.03**	1.21
12	1.93	2.15	2.09	4.55*	.37
TOTAL SCORE	21.93	24.05	23.38	22.72**	.99
ITEMS DIRECTLY INCLUDED	8.59	9.60	9.31	18.34**	.86
ITEMS INDIRECTLY INCLUDED	12.23	13.38	13.04	20.94**	.78

* $p<.05$
** $p<.01$

a All significant differences favor the post test
b All significant differences favor the experimental group

Analysis of Covariance. An analysis of covariance was performed between Pilot 1, Pilot 2 and Control Schools on post-test scores with pretest scores serving as the covariate. Separate analyses were performed on direct, indirect and total score. Direct score was obtained from items directly reflected in the ICE curriculum and the indirect items being related to ICE lessons but not directly related to instruction.

Table 8 presents means for the raw data. These means are adjusted but the relationship between scores is intact. Pilot 2 schools had higher means than the Control school in 2nd, 5th and 8th grade on all post-test scores. The same was true in the Pilot 1 schools except for 2nd grade-direct items where these schools had a lower score than the Control school. In 11th grade control schools had higher scores than Pilot 2 schools on all three measures. Pilot 1 schools for 11th grade performed somewhat better on the post-test than either Pilot 2 or Control. However, there was somewhat better pre-test scores for control schools than Pilot 2 so an analysis of covariance was employed to permit conclusive statements.

The analysis of covariance varified the above conclusions. All F tests were significant at .01 level for 2nd, 5th, and 8th grade students except for 2nd grade-direct. No 11th grade results reached significance.

Teacher Reactions. All 27 teachers who participated in the I-C-E program in the experimental schools provided an overall program assessment as well as responding to monitoring forms regarding each I-C-E lesson. The results of the overall program assessment are summarized in Table 7. The response was overwhelmingly positive. Over 80% found the I-C-E curriculum guides, audio-visual resources and staff assistance very or extremely useful; outside activities of the program were similarly rated by 40% of the teachers (Question #1). Eighty-one percent of the teachers felt the students liked the program either moderately or very much (Question #7).

Examining the content of the program, 78% of the teachers found the lessons to be either very or extremely appropriate to their grade level (Question #3). Of the 12 program concepts, most were considered usable at all grade levels although there was an expected tendency for some of the more concrete concepts (sun energy, clear water, land use) to be more usable at the lower grade levels, while some of the complex concepts (values and attitudes, man changes the environment) were considered more usable at upper grade levels (Question #4). Teachers used the program an average of 2.14 hours per week, with a range from .3 to .8 hours (Question #2). In utilizing the I-C-E materials, 70% said they always or often drew upon the program's cognitive and affective objectives (Question #5). Seventy-four percent of the teachers estimated that the cognitive objectives were attained by 60% or more of their students, while 66% believed the affective objectives were attained by 60% or more of their students (Question #6).

Of particular significance were the student behavioral changes noted by the teachers. A total of 85% of the teachers observed greater student concern for the environment, while 63% noted more discussion of environmental issues and 56% saw a decrease in the wasting of paper. Many teachers also observed changes in other behaviors such as interest in recycling, greater concern for animals and turning off lights when not needed (Question #8).

TABLE 7

11TH GRADE
MEANS AND F TESTS FOR
EXPERIMENTAL AND CONTROL GROUPS ON
I-C-E CONCEPTS TEST
(Experimental N = 139)
(Control N = 122)

Concept	Experimental Pre-test Mean	Experimental Post-test Mean	Control Post-test Mean	Experimental Pre-Post F	Experimental-Control Post-test Fa
1	3.25	2.82	2.64	.77	1.44
2	1.93	2.22	2.44	.93	2.99
3	6.06	6.16	5.80	.49	3.11
4	1.68	1.37	1.45	1.49	.47
5	3.32	3.56	3.44	1.09	.41
6	2.57	2.22	2.22	.44	.00
7	2.71	2.81	2.78	.15	.04
8	1.57	1.48	1.57	.05	1.42
9	2.89	2.81	2.85	.05	.09
10	4.14	4.20	4.21	.00	.00
11	1.93	2.22	2.98	1.24	30.88**
12	2.28	2.24	2.23	.05	.00
TOTAL SCORE	25.71	25.91	26.24	.06	.13
ITEMS DIRECTLY INCLUDED	8.50	8.57	9.24	.05	2.82
ITEMS INDIRECTLY INCLUDED	17.21	17.34	17.00	.05	.34

** $p < .01$

a Significant difference favors control group

Table 8

Adjusted Means for Raw Scores
on ICE Cognitive Tests

		Pilot 1	Pilot 2	Control	Pilot 1	Pilot 2	Control	Pilot 1	Pilot 2	Control	Pilot 1	Pilot 2	Control
TOTAL	Pre	14.31	13.16	13.27	17.30	17.57	18.07	22.57	21.64	20.03	24.66	23.82	24.33
	Post	17.85	17.09	15.49	23.48	20.66	19.88	25.51	24.12	21.88	26.02	25.92	26.30
DIRECT	Pre	1.54	1.91	2.00	1.26	1.30	1.15	2.04	1.92	1.88	1.95	1.81	1.93
	Post	2.04	2.35	2.20	1.82	1.73	1.45	2.29	2.15	1.81	2.33	2.24	2.24
N-DIRECT	Pre	3.18	3.01	2.98	5.24	4.90	4.86	8.94	8.57	8.23	8.26	7.72	8.09
	Post	3.98	3.66	3.13	7.00	5.84	5.37	10.25	9.61	8.90	8.95	8.57	9.26
		N = 364			N = 382			N = 527			N = 346		

Table 9

F Tests For All Grades
On Direct, Indirect and Total Items

	2nd Grade	5th Grade	8th Grade	11th Grade
Direct	1.33	4.38*	7.15*	.1713
Indirect	11.18*	12.31*	4.60*	1.15
Total	9.38*	25.14*	5.43*	.38
	(2/360 df)	(2/378 df)	(2/523 df)	(2/342 df)

*sig. at .01

Table 10

ICE Program Reactions of the 27 Participating Teachers*
in 1974-75 Experimental Schools

Item	Percentages (5)	(4)	(3)	(2)	(1)	Summary	
1) Ratings of Program Components:	Extremely Useful	Very Useful	Moderately Useful	Not Very Useful	Rarely Useful	Mean	Standard Deviation
ICE Curriculum Guides	30	44	22	4	0	4.00	0.83
ICE Audio-Visual Resources	44	33	19	4	0	4.11	1.12
ICE Staff (Personal Help)	70	23	7	0	0	4.63	0.63
ICE Outside Activities	7	33	42	11	7	3.11	1.19
2) Hours/week use of the program:	Range = .3 hours - 8.0 hours per week					2.14	1.63
3) Appropriateness of Lessons to Grade Level Taught:	Extremely	Very	Moderately	Slightly	Inappropriate		
	15	63	22	0	0	3.93	6.16
4) Usability of Program Concepts:	Second	Fifth	Eighth	Eleventh	Overall		
Sun Energy	66	66	42	0	48		
Ecosystem	83	83	50	0	59		
Population	33	33	42	33	37		
Clean Water	83	100	50	66	70		
Clean Air	66	100	50	33	63		
Natural Resources	66	83	66	66	70		
Land Use	83	100	33	66	63		
Values and Attitudes	33	66	17	100	41		
Man Changes Environment	0	66	83	100	63		
Short Term Gains-							
Long Term Losses	33	17	17	0	15		
Individual Acts	50	50	33	66	44		
dship	17	66	17	33	30		

Table 10 continued:

Item	Percentages					Summary	
Use of ICE Objectives:	Always	Often	Sometimes	Rarely	Never	Mean	Standard Deviation
Cognitive	7	63	30	0	0	3.78	0.58
Affective	4	67	22	7	0	3.67	0.68
Attainment of ICE Objectives:	80-100%	60-80%	40-60%	24-40%	0-20%		
Cognitive	15	59	19	7	0	3.81	0.79
Affective	7	59	26	4	4	3.52	1.09
Students Liked the Program:	Very Much	Moderately	Somewhat	Slightly	Not At All		
	37	44	19	0	0	4.19	0.74
Behavioral Effects on Students:	Second	Fifth	Eighth	Eleventh	Overall		
Concern for Environment	66	100	75	100	85		
Turn Off Lights	66	83	25	0	44		
Talk About Environmental Issues	33	100	58	66	63		
Greater Concern for Animals	100	66	17	0	44		
Interest in Growing Things	66	33	17	0	30		
Interest in Recycling	33	66	50	33	48		
Concern for School Grounds	83	17	17	0	30		
Waste Less Paper	83	50	58	0	56		
Intend to Use Program Next Year:	Second	Fifth	Eighth	Eleventh	Overall		
Yes	100	83	25	33	56		
Maybe	0	17	75	67	44		
No	0	0	0	0	0		

There were six 2nd grade, six 5th grade, twelve 8th grade and three 11th grade teachers included.

TABLE 11

PARENT'S REACTION TO
I-C-E PROGRAM

Item		Percentages Agree	Neutral	Disagree
1. Parent's familiarity with the program	2nd	40	24	36
	5th	46	38	16
	8th	43	29	28
	Total	43	33	24
2. Child discusses environmental issues with the parent.	2nd	62	18	20
	5th	60	22	16
	8th	41	38	21
	Total	55	25	20
3. Parent satisfied with I-C-E program	2nd	62	26	12
	5th	70	22	8
	8th	72	25	3
	Total	68	25	8
4. The environmental education program should continue	2nd	76	18	6
	5th	78	12	10
	8th	76	20	4
	Total	76	18	6

5. Behavioral changes noted by parents:

	2nd	5th	8th	Total
Talks about environmental problems	73	80	79	75
Turns off lights & appliances	59	75	56	60
Wastes less food	60	65	57	62
Greater concern for animals	24	65	34	32
Enjoys nature walks more	31	60	38	40
Conserves more water	36	65	55	48
Interest in watching growing things	81	85	80	82
Interest in recycling	65	35	45	56
Wastes less paper	52	75	48	54

As a final indicator of acceptance, teachers were asked if they would continue with the program next year. Overall, 56% indicated they definitely would, while 44% indicated possible continuation; no teacher at any grade said they would definitely not continue the program. Continuation was more certain in the elementary grades where scheduling is more flexible, but high school teachers also demonstrated considerable interest in continuing (Question #9).

Teacher Log. A total of 203 forms were received in the following numbers across grades: Grade 2, 49; Grade 5, 68; Grade 8, 66; Grade 11, 20. Teachers rated the activities, the print and audio-visual resources and the I-C-E staff for each concept lesson on a four-point scale of below average, average, above average and superior. In only five cases were any of the three kinds of resources rated as below average; 59% of the ratings were above average or superior. Teachers were asked to evaluate children's attainment of the objectives, indicating whether up to 25%, from 26% to 50%, from 51% to 75% or from 76% to 100% attained the cognitive objectives, the affective objectives and the skills of relevance to the activity taught. In relation to the time spent on each lesson, teachers reported being satisfied when they felt over half of their students attained the objectives. This level of attainment was typically achieved, with rating of attainment in the upper two percentage groups occurring in 78% of the cases altogether, 36% in the top percentage group.

Use of the I-C-E program and accompanying rescources varied across the four grades examined. Adaptations of the activities and use of existing resources were more common in the upper grades than in the lower grades. Particularly in Grade 2, and to a lesser extent in Grade 5, teachers used the I-C-E activities as distinct lessons, with some teaching carried out by I-C-E staff. Concepts were combined for a lesson more frequently in the upper grades, with the last four concepts (how man changes the environment, short-term grains vs. long-term losses, individual acts, stewardship) often combined with one another or with earlier concepts related specifically to a single natural resource. Typically, two class periods were devoted to the concept lessons, with the range reported from 1 to 13 periods.

Parent Reactions. Out of 120 questionnaires sent, a total of 107 were returned and analyzed. Results are summarized in Table 8.

Overall, 43% of the parents said they were familiar with the program. Extensive familiarity would not be expected as a supplementary program should blend with the normal curriculum. Even though they were not fully aware of the program, 55% of the parents said their children discussed environmental issues with them and only 20% of the parents disagreed with this statement. In response to the question of satisfaction with the environmental eduation program, 68% of the parents responded positively and only 8% indicated any dissatisfaction.

The parents were also asked to indicate whether they noticed any change in a number of behaviors in their child since the start of the I-C-E program. A total of 82% of the parents noticed an increase in their child's interest in watching things grow. 75% of the parents stated their was an increase in discussion of environmental problems. High percentages were obtained for most of the other behaviors listed, such as turning off lights, wasting less food and an interest in recycling.

Finally, the parents were asked whether or not the program should continue. 76% of the parents indicated a clear interest in seeing the program continue. Only 5% were in favor of discontinuing the program.

Summary. In general, the data collected during the 1974-75 year supports the objectives of the I-C-E program. The extensive collection of cognitive data indicates many students attained the cognitive objectives of the program. The only major exception to this was with the 11th grade students where the program apparently had little impact, at least in the cognitive domain. Response by the teachers was quite positive in terms of both the usability of the program and the effects on students. Parental questionnaires support the teachers observations on students behavior. Parents also generally agreed that the program was worthwhile and should continue.