

Proposal
for an
EVALUATION
of the
Delta Volunteers
Environmental Education Project

A Collaboration Between:



Delta Volunteers
Delta Center for Culture and Learning
Delta State University



Science and Art Learning Links for Youth (SALLY)
Cypress Park Elementary School
Cleveland School District



Dahomey National Wildlife Refuge
U.S. Fish and Wildlife Service
Department of the Interior

Prepared by:

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Division of Social Sciences
Delta State University

Proposal for an Evaluation of the Delta Volunteers Environmental Education Project

Introduction

This proposal outlines a program evaluation research project, to assess the effectiveness of the Delta Volunteers Environmental Education Project.

The Delta Volunteers, a program sponsored by The Delta Center for Culture and Learning (DCCL) at Delta State University (DSU), has initiated a collaborative project to encourage an increased awareness and stewardship of the environment among elementary- and college-aged youth in Cleveland, MS. The project incorporates service-learning modules as parts of various DSU courses, in which undergraduate students learn basic principles of environmental education, then practice these principles by instructing elementary school children at Cypress Park Elementary School (CPES). Dahomey National Wildlife Refuge (DNWR) will provide technical assistance, and as part of the project, the elementary school children will construct instructional kiosks to be placed at DNWR. Participants will also assist DNWR with the preparation of kits and posters to support their environmental education efforts. An independent environmental educator will be employed to assist with the project. See Appendix A for more information on the Delta Volunteers project.

The principal investigator is Dr. Alan Barton, assistant professor of sociology and community development in the Division of Social Sciences at DSU. He will conduct an evaluation to assess the overall effectiveness of the program, as well as the impact in terms of the amount learned by participants.

Objectives

The goal of the evaluation is to assess the effectiveness of the service-learning components of the Freshman Emerging Leaders courses. Specific objectives are:

- (1) Measure the extent to which participation in the Delta Volunteers environmental education project advances DSU student participants' knowledge and skills about environmental education
- (2) Measure the extent to which elementary school children learn basic principles of environmental protection and wildlife stewardship
- (3) Assess the overall functioning of the Delta Volunteers environmental education project as perceived by participants and beneficiaries
- (4) Engage DSU students, elementary school children, and DNWR managers in the process of evaluation to stimulate critical thinking and reflection about human-nature interactions

Design

The evaluation will consist of data collection and analysis, with an emphasis on involving project participants in the entire evaluation process. Data collection activities will continue through the 2003-04 school year. A preliminary analysis will be completed at the end of fall semester, and final data analysis will occur towards the end of spring semester, 2004. The results will be summarized in a report submitted to the DCCL.

The evaluation will focus on five groups of participants: (1) DSU instructors that incorporate the Delta Volunteers environmental education project as a service-learning component in their course; (2) CPES teachers, all of whom will be involved in environmental education; (3) DSU students in the courses with an environmental education service-learning component; (4) CPES students participating in the environmental education activities; and (5) Other experts and administrators, such as the managers at DNWR and the environmental educator.

Data Collection

Data collection will focus on two elements. First, measuring the effectiveness of teaching and learning opportunities and other activities in educating college and elementary school students about the environment. Second, assessing the overall suitability of the project design to meet the stated objectives.

The evaluation will rely on five data collection activities:

- (1) Pre- and post-participation surveys of college and elementary school students, to assess learning and satisfaction in line with project and learning objectives as defined by the teachers.

For the college courses, this will be accomplished through a short questionnaire administered to the students by their instructors. The pre-service questionnaire is intended to assess the participants' previous experiences in environmental education, their knowledge about environmental education, and their objectives for this project. The post-service questionnaire is intended to assess the participants' growth based on completing the activities.

For the elementary school participants, the pre-participation questionnaire will provide a baseline assessment of their knowledge about topics that the college students intend to teach, and the post-participation questionnaire will assess their learning as a result of participating in the project.

- (2) Interviews with selected college and elementary school participants, to assess overall satisfaction with the project and activities.

To supplement information gathered in the questionnaires, selected individuals will be interviewed, and asked to provide their assessment of the value of the project, their satisfaction with the activities, and suggestions for improvement in the future.

- (3) Pre- and post-participation surveys of college instructors and elementary school teachers, to solicit their input in project planning, to evaluate their satisfaction with their experiences participating in the project, and to assess their opinion of the project's overall effectiveness.
- (4) Interviews with selected college instructors, elementary school teachers, and experts and administrators, to assess strengths and weaknesses of the project, and opportunities for improvement.

Interviews with instructors will provide an opportunity for critical reflection on the project, and a chance to develop ideas to improve the project the following year. Interviews with administrators and experts will provide a valuable outsider's view of the project.

- (5) Informal observation of project activities as they progress.

The principal investigator will keep field notes on all the activities he observes, which will supplement the information provided by the participants.

Draft versions of the survey instruments are attached in Appendix C. These will be modified and expanded based on input from various participants, but they are included to provide a sense of what sort of questions will be asked.

Data Analysis

Quantitative data generated from surveys of college and elementary students will be analyzed using a statistical package (SPSS). Initial analysis will focus on summary statistics and contingency tables. It is anticipated that this will be sufficient for the purposes, but further analysis will be conducted if necessary. The statistics and tables will be presented to the DCCL with accompanying text that explains the methods used and that provides explanations of the data and results.

Qualitative data generated from interviews with program participants will be analyzed and summarized with salient points highlighted. The analysis will focus on summarizing attitudes expressed consistently or strongly by several respondents, and extracting particularly insightful or useful information transmitted by individual respondents. Attempts will be made to verify or explain interesting points raised in the quantitative data. Data will be presented as text or in tables, if possible.

Participatory Elements

One of the goals of this evaluation is to engage participants in the process of evaluation design, so that they can learn to think about human-nature interactions more broadly. DSU professors that instruct courses that incorporate an element with the Delta Volunteers project will be asked to contribute learning objectives, ideally generated with input from students, and these will be measured before and after the participants carry out the service-learning activities. CPES teachers will be asked to contribute learning objectives as well. In all interactions with program participants, it will be made clear that they have the opportunity to contribute to the design and execution of the evaluation. Input from participants will be used to design later evaluation activities. The intent is to convey the message that the project belongs to participants, and that the evaluation is a collaborative effort among the various participants and the evaluator.

Product

The final product of this evaluation will be a report submitted to the DCCL, presenting an evaluation of the project based on the data gathered and the observations of the principal investigator. This report will primarily be used internally, to improve the project for future iterations.

In addition, it is hoped that the principal investigator and others involved in the project and evaluation can present interesting results that emerge from this research at educational conferences and perhaps in educational journals.

Timeline

- | | |
|----------------|---|
| July 2003 | <ul style="list-style-type: none">• Prepare evaluation design• Write evaluation proposal• Submit proposal to Institutional Review Board for approval |
| August 2003 | <ul style="list-style-type: none">• Survey DSU professors to ascertain learning objectives for the service-learning components of their courses and to gather data on pre-participation attitudes• Survey CPES teachers to ascertain learning objectives for their students participating in the Delta Volunteers activities and to gather data on pre-participation attitudes• Prepare questionnaires and interview guidelines based on information from instructors |
| September 2003 | <ul style="list-style-type: none">• Conduct initial survey of college and elementary school participants to assess knowledge about relevant environmental issues• Sep. 7 – 13: Observe activities connected with the annual 9/11 Week of Service, focusing on environmental education projects involving Delta Volunteers and CPES students |
| October 2003 | <ul style="list-style-type: none">• Oct. 12 – 18: Observe activities as SALLY students participate in environmental education opportunities at DNWR |
| November 2003 | <ul style="list-style-type: none">• Conduct final survey of college participants to assess learning and evaluate value of the program• Interview selected college participants to validate surveys and assess satisfaction with the program |
| December 2003 | <ul style="list-style-type: none">• Conduct post-survey of elementary school participants to assess learning from the fall semester activities• Interview college instructors to assess their satisfaction with the program |
| January 2004 | <ul style="list-style-type: none">• Monitor activities of elementary school participants |
| February 2004 | <ul style="list-style-type: none">• Monitor activities of elementary school participants |
| March 2004 | <ul style="list-style-type: none">• Monitor activities of elementary school participants |
| April 2004 | <ul style="list-style-type: none">• Interview elementary school instructors to assess their satisfaction with the program• Conduct survey of elementary school participants to assess learning and satisfaction with the program• Interview selected elementary school participants to validate learning and assess satisfaction with the program |
| May 2004 | <ul style="list-style-type: none">• Prepare and submit final report |

Research Ethics

This evaluation will be carried out in accordance with accepted ethical practices and the policies and procedures of the DSU Institutional Review Board (IRB). The proposal will be submitted to the DSU IRB for approval prior to undertaking the evaluation.

The purposes of the study and the expected commitment will be explained to participants prior to all data collection activities. Participants will be assured of confidentiality, and all researchers associated with the project will place high importance on protecting the privacy of all individuals involved in the evaluation. As many of the participants in the project being evaluated are minors, special care will be taken to ensure that data collection activities are not stressful, and activities will be explained in simple, explicit language to ensure that participants understand what is expected of them. Where possible, teachers and others that are accustomed to dealing with the minors will carry out evaluation activities.

Participants will be notified who they can contact with questions or to resolve any problems with the study. Data that are presented publicly will not include individual identifying characteristics, without express prior consent from the respondent.

Principal Investigator

Alan Barton, Ph.D.
Assistant Professor
Division of Social Sciences, 201A Kethley Hall
Delta State University, Cleveland, MS 38733
Tel: (662) 846-4097, Fax: (662) 846-4016
E-mail: abarton@deltastate.edu

Appendix A: The Delta Volunteers Environmental Education Project

Following is a brief summary of the Delta Volunteers Environmental Education Project.

Project Participants

The Delta Volunteers will carry out this project in collaboration with the Science and Art Learning Links for Youth after-school program at Cypress Park Elementary School in Cleveland, MS, and with the Dahomey National Wildlife Refuge in Boyle, MS.

The Delta Volunteers, a program of the Delta Center for Culture and Learning (DCCL), places Delta State University (DSU) students in structured volunteer projects that promote positive social change and develop cross-cultural understanding. Projects provide college students with opportunities for professional development while working to alleviate poverty and support educational achievement among Delta residents. The Delta Volunteers Environmental Education project will be incorporated as a service-learning component in Freshman Emerging Scholars (FES) classes, which are designated courses in various disciplines. Approximately 400 students and faculty from the FES classes participate. The Center for Science and Environmental Education (CSEE) at DSU will collaborate on environmental education aspects of the project, and an environmental educator will be hired to direct this portion of the project.

Cypress Park Elementary School (CPES) is located in Cleveland, MS. Approximately 300 students from grades 1–6 attend CPES, and 99% are reduced or free lunch students. CPES sponsors the Science and Art Learning Links for Youth (SALLY) after-school program, and teachers and students involved in this program will participate in many of the environmental education projects coordinated by the Delta Volunteers. There is a natural wetlands area adjacent to this school, and this area will be used to encourage students to engage in good land stewardship practices as part of the various environmental education activities coordinated through the Delta Volunteers program.

Dahomey National Wildlife Refuge (DNWR) is located off Highway 446, near Boyle, MS. This 9,691 acre site was established in 1990 to provide habitat for migratory waterfowl and to provide recreational and environmental education opportunities for the public. The refuge protects a large tract of bottomland hardwood forests, which attract up to 15,000 migrating waterfowl in the winter, as well as large concentrations of migrating songbirds in the summer. Hunters use the refuge to hunt deer and wild turkey.

Funding for this project comes from a grant to the DCCL from Entergy.

Project Objectives

The Delta Volunteers Environmental Education project has the following objectives:

- (1) Build environmental kiosks at Dahomey National Wildlife Refuge and at Cypress Park Elementary School.
- (2) Educate Delta State University students on basic environmental education techniques and wildlife stewardship.
- (3) Educate Cypress Park Elementary School students on basic wildlife stewardship.

- (4) Educate Cypress Park Elementary School SALLY students on more in-depth experiential environmental education.
- (5) Build bird houses for Cypress Park Elementary School's natural wetlands area.
- (6) Design environmental education kits and posters for Dahomey National Wildlife Refuge visitors and school groups.

Project Activities

The Delta Volunteers Environmental Education Program includes the following activities:

- (1) 9/11 Week of Service Environmental Education Service-Learning Project, Sep. 7 – 13. Delta Volunteers collaborate with CPES and DNWR to implement various environmental education projects, including building environmental kiosks at DNWR and CPES, building bird houses at CPES, and exploration of nature trails at DNWR and CPES.
- (2) Environmental Kiosk Design. Delta Volunteers and others will assist CPES students design environmental kiosks, under the supervision of DNWR staff.
- (3) Environmental Education Posters. DNWR will coordinate the design and distribution of posters to Mississippi schools, promoting environmental stewardship and environmental education.
- (4) Environmental Education Kits. CPES students will design and assemble environmental education kits for visitors to use at DNWR.
- (5) National Wildlife Refuge Week, Oct. 12 – 18. Delta Volunteers will work with DNWR staff to conduct interpretive walks for CPES students along DNWR trails utilizing the environmental education kits.
- (6) Ongoing Environmental Education, using Environmental Education kits. The environmental educator will instruct SALLY students in wildlife stewardship and experiential environmental education on an ongoing basis throughout the school year.

Delta Center for Culture and Learning

The Delta Center for Culture and Learning is an interdisciplinary program that brings together the humanities and environmental sciences to expand and promote a better understanding of the culture of the Mississippi Delta. The DCCL collaborates with various community and educational organizations throughout the Delta region to accomplish this mission. The Delta Volunteers program is part of the DCCL's Office of Student and Community Engagement. Contact information for the DCCL is:

The Delta Center for Culture and Learning
PO Box 3152, Delta State University
Cleveland, MS 38733
Tel.: 662-846-4312

**Appendix B:
Curriculum Vitae for Principal Investigator**

Alan William Barton

CURRENT POSITION

Assistant Professor, Sociology and Community Development, Division of Social Sciences, College of Arts and Sciences, Delta State University, Cleveland, MS, and Faculty Associate, Delta Community Development Center, Cleveland, MS

EDUCATION

Ph.D., Community and Environmental Sociology (Minors: Conservation and Sustainable Development, Research Methods in Education), College of Agriculture and Life Sciences, Cornell University, Ithaca, NY

M.S., Forest Resource Policy and Land Use Planning, College of Forest Resources, University of Washington, Seattle, WA

B.A., Sociology/Spanish, College of Letters and Science, University of California, Berkeley, CA

RESEARCH

Published Articles/Chapters:

Nina Glasgow and Alan Barton. 2003. "Older Workers and Retirement in Rural Contexts." In William Falk, Michael Schulman and Ann Tickamyer, editors. *Communities of Work*. Athens, OH: Ohio University Press

Charles C. Geisler, Rees Warne and Alan Barton. 1997. "The Wandering Commons: A Conservation Conundrum in the Dominican Republic." *Agriculture and Human Values* 14(4):325-335

Published Technical Reports:

Debra J. Salazar and Alan Barton. 1988. "Measuring the Value of Technical Forestry Assistance: The Washington Case." College of Forest Resources, University of Washington, Seattle, WA. Report prepared for the Washington State Department of Natural Resources

Debra J. Salazar, Alan Barton and John Macklin. 1988. "Comparative Analysis of State Forest Practice Regulations." College of Forest Resources, University of Washington, Seattle, WA. Report prepared for the California Department of Forestry

Conference Papers:

Alan Barton. "Parks, Participation and the Press: Facilitating the Formation of Protected Areas in the U.S. and Honduras." Paper presented at the 65th Annual Meeting of the Rural Sociological Society, Chicago, IL, August 14–18, 2002

Alan Barton. "Normative Parks: Informal Co-Management of Protected Areas in Honduras." Paper presented at the 9th International Symposium on Society and Resource Management, Bloomington, IN, June 2–5, 2002

Alan Barton. "Regulatory Authority and Participatory Protected Areas Management: A Case Study from Cerro Azul-Meámbar National Park, Honduras." Paper presented at the 64th Annual Meeting of the Rural Sociological Society, Albuquerque, NM, August 15–19, 2001

Reviews:

Alan Barton. 2003. Review of *The New Economy of Nature: The Quest to Make Conservation Profitable*, by Gretchen C. Daily and Katherine Ellison. *Society and Natural Resources* 16(7): 668–670.

Alan Barton. 2003. Review of *The Legacies of Liberalism: Path Dependence and Political Regimes in Central America*, by James Mahoney. *Rural Sociology* 68(1):141–144.

Thesis Research:

PhD Dissertation: Regulatory Authority and Participatory Protected Areas Management at Cerro Azul-Meámbar National Park, Honduras
Advisor: Dr. Charles C. Geisler

M.S. Thesis: A Property Rights Economics Interpretation of the Formation of Landowner-Based Organizations for Non-Industrial Private Forest Owners
Advisor: Dr. Debra J. Salazar

TEACHING

Courses Taught:

Principles of Sociology (Freshman level)
Methods of Social Research (Senior/Graduate level)
Education and Participatory Community Development (Graduate level)
Environment and Society (Senior/Graduate level)

Teaching Assistant:

Environment and Society (Junior level)
Introduction to Forest Management (Freshman level)
Introduction to Rural Sociology (Freshman level)

OTHER PROFESSIONAL EXPERIENCE

Training Coordinator/Technical Trainer in Natural Resources Management and Environmental Education, International Training and Development Institute/American Cultural Exchange, Seattle, WA, Mississippi Consortium for International Development, Jackson, MS, and CHP International, Santa Lucia, Honduras and Alajuela, Costa Rica

National Park Service Ranger, Everglades National Park, Homestead, FL, Channel Islands National Park, Ventura, CA, and Katmai National Park, King Salmon, AK

Peace Corps Volunteer, Agricultural Extensionist, San Patricio, Paraguay and Rural Health Educator, Las Cabras, Chile

OTHER

Grants:

National Science Foundation Research Training Grant
Cornell International Institute for Food, Agriculture and Development Travel Grants
Mario Einaudi Center for International Studies Travel Grants
Cornell Graduate School Travel Grant
Cornell Department of Rural Sociology Travel Grants

Journal Reviewer:

Rural Sociology
Society and Natural Resources
Culture and Agriculture

Honors:

Alpha Kappa Delta Sociology Honor Society
Xi Sigma Pi Forestry Honor Society

Professional Memberships:

American Sociological Association
Rural Sociological Society
Society of American Foresters
Society for Conservation Biology
International Society of Tropical Foresters
International Association for the Study of Common Property
Latin American Studies Association
International Association for Society and Natural Resources

Languages:

Fluent in spoken and written Spanish

Appendix C Draft Questionnaires

Delta State University Instructor Pre-Survey

Name _____ Course _____

- (1) (a) How long have you worked at DSU? _____ years
 (b) How many semesters have you taught at DSU? _____ semesters
(Note: Count ONLY fall and spring semesters, NOT summer semesters)
- (2) What is your university rank or job title? _____
- (3) What is the highest degree you have earned? _____ in _____
(Degree) (Field)
- (4) How many times have you taught a course with the following components?:
(Note: For courses you teach regularly, count each semester as one time; if you have 3 courses in one semester and each incorporates service-learning, count as 3)
 (a) Service-learning _____
 (b) Environmental education _____
- (5) Have you received any specialized training in environmental education prior to participating in this environmental education service-learning project? ___Yes ___No

Please read each statement carefully and mark an "X" in the box that best represents your opinion:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
(6) I have received adequate preparation to teach and participate in the environmental education service-learning project					
(7) I am confident that the environmental education service-learning project will be successful					
(8) I am confident that the students will benefit from participating in the environmental education service-learning project					
(9) I have been given sufficient opportunity to provide input on the design of the environmental education service-learning project					
(10) I believe service-learning is a valuable teaching tool that enhances a college student's overall educational experience					

(11) What are the three most important things you want your students to learn by participating in this environmental education service-learning project?

(12) What do you think will be the biggest challenge or problem in carrying out the environmental education service-learning project?

Delta State University
Student Pre-Survey

Date _____

Student ID Number _____

Course: Dept. _____ No. _____

Instructor _____

Sex: Male Female Age: _____ years old

Circle One

Please read each statement carefully and mark an "X" in the box that best represents your opinion:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I know a lot about [substantive topic]					
I know a lot about [substantive topic]					
I believe I can make a positive contribution to this environmental education project					
I believe this project will have a positive impact on environmental quality in the Mississippi Delta					
...					

	Yes	No
Have you ever studied environmental education or participated in an environmental education project before?		
Have you ever worked with elementary school children as a teacher or in a similar capacity before? [Note: Not necessarily in a school setting]		
Do you think you will benefit from participating in this environmental education project?		
...		

Cypress Park Elementary School Teacher Pre-Survey

Name _____ Grade _____

(1) How long have you been an instructor at Cypress Park? _____ years

(2) Have you ever included environmental education in your teaching before participating in this environmental education project? ___Yes ___No

(3) Have you had any previous training in environmental education before participating in this environmental education project? ___Yes ___No

(4) What is the highest degree that you have earned? _____ in _____
Degree *Field*

Please read each statement carefully and mark an "X" in the box that best represents your opinion:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
(5) I have received adequate preparation to teach and participate in the environmental education project					
(6) I am confident that the environmental education project will be successful					
(7) I am confident that the students will benefit from participating in the environmental education project					
(8) I have been given sufficient opportunity to provide input on the design of the environmental education project					

(9) What are the three most important things you want your students to learn by participating in this environmental education project?

(10) What do you think will be the biggest challenge or problem in carrying out the environmental education project?

Cypress Park Elementary
Student Pre-Survey

Date _____

Student ID
Number _____ Grade _____

Teacher _____

I am a: Boy Girl I am _____ years old
 Circle One

Please read each statement carefully and mark an "X" in the box that best represents your opinion:

	A Lot	More than Average	About Average	Less Than Average	Nothing
How much do you know about [substantive topic]?					
How much do you know about [substantive topic]?					
...					

	Yes	No
Have you ever studied the environment before?		
Do you think you will enjoy studying about the environment?		
Do you think you will learn new things studying the environment?		
...		