

## DOCUMENT RESUME

ED 482 243

IR 022 048

AUTHOR Burton, Laura; Goldsmith, Diane  
TITLE The Medium Is the Message: Using Online Focus Groups To Study Online Learning.  
PUB DATE 2002-06-04  
NOTE 15p.; Prepared by the Connecticut Distance Learning Consortium. Funded by the Davis Education Foundation. A presentation for the Association of Institutional Research (Toronto, Ontario, Canada, June 4, 2002).  
AVAILABLE FROM For full text: <http://www.ctdlc.org/Evaluation/mediumpaper.pdf/>.  
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)  
EDRS PRICE EDRS Price MF01/PC01 Plus Postage.  
DESCRIPTORS Computer Assisted Instruction; Computer Mediated Communication; \*Distance Education; Educational Quality; \*Focus Groups; Higher Education; Instructional Development; \*Instructional Improvement; \*Online Systems; State Programs; Student Participation; Student Reaction  
IDENTIFIERS Connecticut

## ABSTRACT

As part of the continuing efforts to improve the quality of online learning in the course and program offerings of a state-wide consortium of higher education institutions, the Connecticut Distance Learning Consortium has undertaken a 3-year research project to better understand how online students first approach Web-based learning and how that approach changes as they become more experienced. This paper explores and evaluates the development of a methodology for conducting electronic focus groups to evaluate student experiences in distance learning. Researchers are beginning to understand that using Web-based technologies augments the benefits of focus group methods. Electronic focus groups will allow participants to discuss and interact through a medium that is a part of their online learning environment. The benefits realized during the course of the two online focus group projects included lack of participant apprehension to communicate thoughts and the ability to discuss difficult topics. An additional benefit that has not been noted in previous research was the depth of discussion following participant agreement with other focus group members' comments. (Author/AEF)

Reproductions supplied by EDRS are the best that can be made  
from the original document.

# The Medium is the Message: Using online focus groups to study online learning

**A Presentation for the Association for Intuitional Research**

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

**D.J. Goldsmith**

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

**Laura Burton, Ph.D.  
Diane Goldsmith Ph.D.**

**Connecticut Distance Learning Consortium  
Funded by the Davis Education Foundation  
June 2002**

**CONNECTICUT DISTANCE LEARNING CONSORTIUM  
WWW.CTDLC.ORG**

## Abstract

### **The Medium is the Message: Using Online Focus Groups to Study Online Learning**

As part of the continuing efforts to improve the quality of online learning in the course and program offerings of a state-wide consortium of higher education institutions, we have undertaken a three year research project to better understand how online students first approach web based learning and how that approach changes as they become more experienced. This paper explores and evaluates the development of a methodology for conducting electronic focus groups to evaluate student experiences in distance learning. Researchers are beginning to understand that using web-based technologies augments the benefits of focus group methods. Electronic focus groups will allow participants to discuss and interact through a medium that is a part of their online learning environment.

Laura Burton, Ph.D.  
Diane Goldsmith Ph.D.

Funded by a grant from the Davis Education Foundation  
© The Connecticut Distance Learning Consortium, 2002



Connecticut Distance Learning Consortium  
55 Paul Manafort Drive  
New Britain, CT 06053  
860-832.3888  
860-832-3999  
www.ctdlc.org

## Introduction

As part of the continuing efforts to improve the quality of online learning in the course and program offerings of a state-wide consortium of higher education institutions, we have undertaken a three year research project to better understand how online students first approach web based learning and how that approach changes as they become more experienced. We have chosen to conduct this research using online asynchronous focus groups. This paper will explore and evaluate the development of a methodology for conducting electronic focus groups to gain a rich understanding of student experiences in distance learning.

On-line focus group research is in the preliminary stages in both social science and market research. Researchers are beginning to understand that using asynchronous and synchronous technologies augments the benefits of focus group methods. Qualitative analysis, through the use of focus group research, can provide a rich source of information regarding the online learning experiences of students. Because of the nature of online learning, the use of asynchronous electronic focus groups will allow participants to discuss and interact through a me-

dium that is a part of their online learning environment. Research questions that explore an on-line phenomenon are strengthened through the use of a method of research that closely mirrors the natural setting under investigation (Gaiser, 1997). Use of asynchronous online focus groups that transpire over the course of a semester reflects the environment experienced by online students.

Advantages of on-line focus groups include congruence with the environment being studied, increased ease of communication between participants, greater equality of participation in the discussion, anonymity of participants, reduction in bias, ability to recruit diverse populations, and the ability to address more controversial topics. Disadvantages associated with on-line focus groups, include under representation of the overall population because only internet users are included, loss of verbal cues during communication, potential problem of protection of privacy of discussion, a high no-show rate among participants agreeing but failing to take part in the online focus groups, and potential issues regarding flaming discussions within an on-line discussion (Geiser, 1997; Montoya-Weiss, M., Massey, A.,

Clapper, D., 1998; Schneider, S., Kerwin, J., Frechtling, J. & Vivari, B., 2001; & Tse, A., 1999). Lack of nonverbal (facial expression, body posture, etc.) and paraverbal cues (voice inflection, interjections, laughter, etc.) have been identified as another disadvantage to online focus groups. Yet other research has suggested use of common emotions and abbreviations can augment the lack of non-verbal and paraverbal cues in an online environment (Schneider et al., 2002 & Walston & Lisitz, 2000). A further disadvantage attributed to online focus groups includes more abbreviated responses to questions and an overall lower level of individual dialogue in the discussion (Schneider et al., 2002). This disadvantage was evident in synchronous online focus groups and may not be applicable to asynchronous focus group discussions.

For some students a benefit to the on-line learning environment is the ability for enhanced communication between students and faculty versus communication in the on-ground classroom environment. Students apprehensive about communicating in an on-ground classroom are more likely to participate in discussions via an on-line environment. Issues related to race, social class, age and perceived level of expertise are not apparent in an on-line forum; participants hesi-

tant to enter discussions in-person may be more comfortable entering on-line discussions (Sullivan, P. 1999). On-line focus groups may facilitate discussion of more controversial topics than would be possible in a traditional focus group format. Students may feel more comfortable discussing difficult issues regarding the on-line learning experiences. However, the moderator must be sure to set ground rules at the beginning of the session that will establish the tone of the discussion and prevent students from entering into flaming rhetoric or discussions that deviate far from the topics presented.

## Methodology

This methodology offers two other advantages for this type of study. It overcomes the problems of distance and time. Our multi-institutional sample includes students with distance and time constraints that would preclude them from participation in an onsite focus group. There is also a time and money savings. The asynchronous chat room creates an immediate transcript of the focus group which can be reviewed by both the participants and the researchers. This eliminates the need for costly transcribing of tapes and allows the participants to comment on or correct any information immediately or at a later

date.

This study was conducted during the Fall 2001 semester and again during the Spring 2002 semester using students who were enrolled in online courses or an online program and were matriculated at any of 11 institutions which are part of a state-wide consortium. The institutions and the one system representing four institutions participating in the research recruited between eight and ten online students, representing a sample of students taking on-line courses at their institutions. The students recruited include both new and returning on-line students, to gain a better understanding of the variety of their experiences. Participants received detailed explanations of focus of the research, their responsibilities as participants and signed informed consent forms. Participants were provided a stipend for participation in the focus groups at the completion of the semester.

For the Fall 2001 project, students were separated into five focus groups based on the number of online credits they had accumulated. Students new to on-line education were placed with other new students, and participants with more on-line experience were grouped with students with similar experience. This allowed new students to dis-

cuss issues pertaining to entry into the on-line education environment. More experienced participants could discuss issues faced when already exposed to the on-line education environment. Each focus group had students representing at least three different institutions. There were a total of sixty-four participants at the beginning of the project in the Fall 2001 semester. Each focus group had a minimum of eleven participants, with a maximum of fourteen in one group. Eight participants withdrew from the study before completion, leaving fifty-six total participants for the entire semester. By gender, there were forty-three women (67%) and twenty-one men (33%) in the project. This demographic is roughly equivalent to the percentage of men and women taking online courses at the participating institutions.

For the Spring 2002 semester, those students who were continuing to take online courses and who were interested in continuing in the study were collapsed into four focus groups. An additional set of four new focus groups was formed with students who were not participants in the Fall 2001 project. As with the Fall 2001 focus groups, the new participants were separated into groups with every effort being made to keep students new to online learning in groups separate from those with more online learning experience,

but this was not possible for all groups. For the returning participants, every effort was made to keep the original groups intact, but because some students were no longer taking online courses and others were not interested in continuing, one group had only five participants while another group had ten. Three of the new focus groups for the Spring 2002 project had ten participants, the fourth had eleven participants. By gender, there were twenty-six female participants (60%) and 17 male participants (40%). Two participants were not contained in these percentages; their gender was not indicated. Of a total of seventy-four students enrolled to participate in the Spring 2002 semester focus groups, fifty-four students completed participation.

Participants were contacted via email in the second week of each semester. They were given instructions regarding a general overview of the project, their responsibilities as a participant, ground rules for the discussion and information on how to log into the discussion groups. It is important to explain the requirements and expectations for the participants and to establish necessary ground rules prior to beginning the focus group in order to facilitate a positive environment that encourages active discussion by all participants. Participants were asked to print and save the email message for future reference.

6

Participants were expected to take part in two focus group sessions during each semester. The first thread posted to each focus group contained a welcome message, introduction and a sample response to a question in a discussion thread. The sample response was designed to help participants understand the detail of the responses desired for each question. Following the welcome message, four separate threads were also posted. The threads represented major topic areas deemed important to students' experiences in the online learning process. These questions were generated following a review of the online literature regarding student experiences and also content review by a panel of experts.

The Spring 2002 focus groups followed the same format. Students returning to their second focus group discussion were welcomed back, reminded of their responsibilities to the focus group and were asked to read and respond to a new set of discussion threads. The new focus group participants were given the same instructions as the Fall 2001 participants and the same set of threaded discussions. In an effort to enhance understanding of students' experiences with online learning and contribute to the themes developed from the Fall 2001 responses, the same questions were asked to the new partici-

pants in the Spring 2002 focus groups.

A week after the first set of discussion threads were posted for the Fall 2001 and Spring 2002 groups, follow-up emails were sent to those participants who had not responded. Students who had not logged onto the discussion groups a week following the initial email were sent a follow-up reminder to log onto the focus groups. Included in this reminder were the instructions for the focus groups that were sent in the original email. Students who had not logged onto the discussion two weeks after the initial email and one week after the first follow-up email were sent an additional email reminding them of their participation in the focus groups and the need to log on and respond to the questions posted.

To facilitate greater discussion, participants were encouraged to respond directly to comments posted by other participants without input from the moderator. This was encouraged in order to facilitate greater discussion on more topics than those introduced by the moderator and lead to greater understanding of the experiences of on-line students. A benefit to asynchronous discussion allows both participants and moderators to reflect on what is being discussed and how to respond to this discussion (Monotya-Weiss, et al., 1998). This reflective time allows for

continual analysis of the responses, uncovering new themes and introduction of new topics based on those emerging themes.

A second set of discussion threads was posted at the end of each semester. Students were contacted as they had been for the first set of threads, via email directing them to the site. The second set of questions sought more in-depth understanding of issues and themes that had emerged during the first set of questions and also sought to gain greater understanding of students' experiences as they had progressed in their online courses throughout the semester. This set of discussion questions focused on assessment within the online course, utilization of online tutoring services, experiences with group projects and a final set of questions regarding what students believed made a good online instructor and whether they would take another online course.

### **Lesson Learned**

The benefits to online focus groups discussed in the first section of the paper were realized during the course of the two online focus group projects. These benefits included lack of participant apprehension to communicate thoughts and the ability to discuss difficult topics. An additional benefit

that has not been noted in previous research was the depth of discussion following participant agreement with other focus group members' comments. Participants discussed personal challenges they had faced with other students and with faculty as well as discussing the more mundane aspects of being a student in an online environment. Participants discussed their frustrations with faculty that took a hands-off approach to their interaction with students, including the difficulties they faced when not receiving adequate assessment of their work. During many of these discussions, participants offered encouragement and support for their fellow focus group members, and in some cases would offer their own experiences as further support.

*Participant A : "I personally feel that I can express my opinions and ask questions that I wouldn't normally ask. I'm not intimidated because I'm faceless."*

*Participant B responding to A: "I agree with you here. If I were in a classroom I would be the one sitting all the way in the back of the room, never raising my hand."*

*Participant C: "I am taking a basic course and I am totally lost. Thank goodness I have taken other classes*

*online and received A's, or this instructor would have totally turned me off to DL. I call and email her to try to clear up the confusion and I do not get any responses from her.*

*Participant D responding to Participant C: "I'm in the same course and it's my first DL course. I am totally turned off at this point! I too am lost and am blowing a very good GPA because of the teacher's hands off style."*

It is difficult to thoroughly appreciate the lack of social cues (i.e. perceived wealth, perceived expertise) as an advantage to online focus groups. The participants' discussions and the responses to these discussions indicate that some students did not evaluate another's expertise or lack of expertise that may develop in a face-to-face interaction where social cues are available. With face-to-face focus group research, the perception of expertise may result in those participants dominating the discussion in the group. As supported in other research, there was equality in participation within each focus group; a few participants did not dominate the discussion (Schneider et al., 2001). However, the content of responses to some discussion may have revealed more significant ex-

expertise in an area (i.e. perceived computer skills), and also because the names of participants were posted with each email, it cannot be stated with certainty that participants perceived each other equally. Participant's gender, or at least their perceived gender based on names, may have influenced others' evaluation of expertise or superiority during the focus groups. Another potential source of participant expertise or superiority could have arisen in cases where a student had an online course with another participant (as was the case in at least one focus group).

Other benefits to online focus groups that were realized during this project included the asynchronous component available in online focus groups and the elimination of the time consuming and costly function of transcription of focus group responses. Because this research involved understanding the learning experiences of students in an asynchronous learning environment, use of the asynchronous focus groups was a congruent methodological choice.

Evaluation of synchronous focus group data revealed a decrease in the number of words participants used in discussion as compared to participants in on-ground focus groups. Participants in synchronous groups often replied with "I agree" when responding

to another participant's posting without elaborating more completely on his or her experience (Schneider et al., 2001). This decrease in the amount of discussion in the online focus group may be the result of the time component to a synchronous online focus group. Participants may have been unwilling to type lengthy explanations during a synchronous chat. Using an asynchronous format, participants may not feel pressed for time and are able to respond at greater length to discussion group questions, and therefore may provide more detailed responses than those reported in synchronous online focus groups. Many participants in the asynchronous focus groups did respond in concurrence to their follow focus group participants' postings, and then continued to elaborate on the reasons for agreement.

*"I agree with the rest of the group. A teacher has to be accessible. A teacher should at least check in online all day, everyday if they cannot be online for a long period of time. I had to wait a couple of days for feedback which I think is not fair. I think we should get the same experience as an on-ground class. A teacher should at least respond to any question, feedback, etc. at least the next day."*

*"I agree wholeheartedly with the reasoning of the previous discussion. I would only add that I might take courses "on the ground" if they were an important part of the degree or would need a lot of interaction."*

*"I agree with Dan. The professor very much sets the tone. Of my two online classes this semester I have one that is very interactive. The professor checks in multiple times per day. She encourages dialogue and I feel I have reached a level of communication online that would not be available in person."*

An additional benefit to the online focus groups was having the ability to copy participant responses from HTML to Microsoft Word. This was a more efficient and cost effective method of data collection than transcribing interview data to Microsoft Word. The time needed to transcribe the responses of eight focus groups with between five and eleven participants per group would be extraordinary. The costs to have these interviews transcribed would also be significant. This time and cost savings cannot be overstated as a positive benefit to online focus groups.

The challenges that were faced in both the fall and spring semester focus groups can help develop better steps to improve the methodology of online focus groups. The challenges encountered in this project included the challenge of engaging all participants in discussion, generating discussion among focus group members, moderating the focus groups to generate greater discussion, and the length of time over which the focus groups took place. Another challenge included the loss of students from some groups from one semester to the next, which had a negative impact on the quality of discussion later in the semester.

In an online environment, participants can chose not to participate in the discussion even after agreeing to be a part of the online focus group; this has been noted as a disadvantage to online focus groups in previous research (Schneider et al., 2001). In the online focus groups, there were some participants who did not enter the discussion. This can be avoided in on-ground focus groups by having the moderator direct a specific question to that participant in an effort to facilitate involvement. For these focus groups, follow-up emails were sent to those participants who were not entering the threaded discussions. This effort was worthwhile in involving some participants but not others.

Another challenge throughout both semesters was the difficulty in generating discussion among focus group participants. Participants responded in detail to discussion postings by the moderator, and there was discussion among some participants, but there was also expectation that participants would generate greater discussion among themselves. For the fall semester, those groups that did generate discussion among participants were most often those with experience in the online classroom environment (i.e. had taken more than one online course prior to participation in the focus group). Students with more online course experience may be more comfortable with an asynchronous discussion format, as this format is used in most online courses, and are therefore more comfortable in generating discussion among other participants. Students new to the online learning environment have not had as much experience in asynchronous discussion, and may be less comfortable using this medium as a way to communicate with their other focus group members. The instructions communicated to all focus group members stressed the importance of generating discussion among participants, but some groups did not generate discussion as well as other groups. Those groups that did not generate discussion were students with less online

course experience, and their ability to generate discussion within this environment may be developing as they continued to gain experience in the online learning environment.

In the Spring semester focus groups, some of the groups had a mix of both experienced and inexperienced participants, and in this format there does not appear to be less communication by students new to the online environment versus more experienced online students. More experienced online students may be setting an example regarding how to generate discussion among focus group members, providing less experienced students with an enhanced awareness of how to communicate in an online environment. Greater understanding of how to develop more discussion among online focus group participants must evaluate online course experience in addition to other factors that may be interacting in this medium, but are not apparent in this study.

Another challenge apparent in the online focus groups was the struggle to balance moderator involvement. Limited moderator involvement has been described, as both a benefit and a detriment to on-ground focus groups, and this may also be the case for online focus groups. During the fall focus groups, after the participants had addressed

the first set of discussion threads, the moderator entered the group, made comments regarding the posted threads and asked for continued discussion to the moderator postings. Some participants did return to the threads and make comments on the new postings. The involvement of the moderator in the online focus group was influential in generating greater participant discussion.

An additional challenge faced during this project was the difficulty in maintaining focus groups from the Fall semester through the Spring semester. It was anticipated that some students would be lost as a result of matriculation or because some would not be taking an online course in the Spring. Unforeseen circumstance resulted in one focus group losing five members. Some participants agreed to continue through the second semester, but failed to participate in the Spring. The discussions in this focus group were much less substantive than discussion during the Fall semester. Those groups that maintained more than five participants generated greater discussion than the group containing only five members. The number of participants influenced the quality of discussion in this research, with better discussion apparent in focus groups with more than five members.

The duration of the online focus groups spanned a three and a half month period. Students were asked to participate in two separate discussions during this time. This duration was designed in an effort to gain greater understanding of students' experiences in online learning as they began the semester and then when they were completing the course. Though this schedule appeared to be beneficial from a content perspective, from a methodological perspective, it may have been detrimental. Maintaining participant interest and enthusiasm for the project was difficult over such a long time period. Also, students were asked to contribute to the focus groups at the end of the semester, typically a very busy time during for their courses, therefore the depth of discussion to the final set of postings was affected. Students may have been too busy with the demands of their coursework to dedicate time to contribute to the last set of discussion postings for the online focus groups.

The use of asynchronous online focus groups can be an effective methodological tool in educational research. The discussions generated through the asynchronous online focus groups provided a rich data source for evaluation of students' experiences in online learning. Future research using asynchronous online focus groups should build on the

strengths of this method including lack of participant apprehension to communicate thoughts, the ability to discuss difficult topics and the depth of discussion that follows participant's agreement with the statements of other focus group members.

## Discussion

Challenges faced in using asynchronous online focus groups must also be addressed. Use of this method must address the challenge of having all focus group members participate in the discussion. This may include evaluating the stipend offered to participants, the amount of time required for focus group members' participation, and possibly participants' interest in the subject matter addressed in the research project. The role of the moderator in asynchronous online focus groups must also be addressed. This research indicates greater moderator involvement leads to improved focus group discussion, future asynchronous online research should take into account the level of involvement needed, and if such involvement will be of benefit or detriment to the research questions being addressed.

Size of the groups must also be taken into account when forming the groups. This should include taking into account those indi-

viduals who agree to participate in the research but fail to enter the discussion (e.g. subject mortality). Ten to fifteen participants should be recruited for asynchronous online focus groups, with a minimum of ten members fully participating in the focus groups. The duration of the asynchronous online focus group must be evaluated. Focus groups requiring participation over an extended time period may be detrimental to the quality of the discussions posted during the later stages of the project.

Finally, the participants' experiences in using online discussions, either synchronous or asynchronous, need to be understood during participant recruitment and selection into groups. Those participants with less experience in online discussions should be grouped with participants more familiar with this type of communication. Grouping less experienced participants with more experienced participants can yield greater discussion among all group members as opposed to grouping those with similar experience together.

## References

Geiser, T. (1997). *Conducting On-Line Focus Groups: A Methodological Discussion*. *Social Science Computer Review*, 15(2). 135-144.

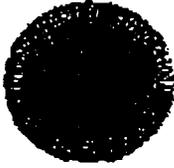
Montoya-Weiss, M., Massey, A., & Clapper, D. (1998). *On-Line Focus Groups: Conceptual Issues and a Research Tool*. *European Journal of Marketing*, 32(7/8). 713-723.

Schneider, S., Kerwin, J., Frechtling, J., & Vivari, B. (2001). Characteristics of the Discussion in Online and Face-to-Face Focus Groups. *Social Science Computer Review*, 20(1). 31-42.

Sullivan, P. (1999). Gender and the Online Classroom.” *Teaching English in the Two Year College*. 25. 361-71.

Tse, A. (1999). Conducting Electronic Focus Group Discussions Among Chinese Respondents. *Journal of Market Research Society*, 41(4). 407-416.

Walstonn, J. & Lissitz, R. (2000). Computer-Mediated Focus Groups. *Evaluation Review*, 24(5). 457-483.



U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)



REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Table with 2 columns: Field and Value. Fields include Title, Authors, Corporate Source, and Publication Date.

II. REPRODUCTION RELEASE:

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

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

Table with 3 columns representing Level 1, Level 2A, and Level 2B reproduction release options. Each column contains a sample notice, a sample box, and a checkbox.

Signature and contact information section. Includes a signature line, printed name/position, organization address, telephone, fax, and email address.

EFF-088 (Rev. 2/2001)



### III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of these documents from another source, please provide the following information regarding the availability of these documents. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

### IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

### V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC Clearinghouse on Information & Technology @  
Syracuse University  
621 Skytop Road, Ste 160  
Syracuse, NY 13244-5290

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the documents being contributed) to:

#### ERIC Processing and Reference Facility

4483-A Forbes Boulevard  
Lanham, Maryland 20706

Telephone: 301-552-4200

Toll Free: 800-799-3742

FAX: 301-552-4700

e-mail: [ericfac@inet.ed.gov](mailto:ericfac@inet.ed.gov)

WWW: <http://ericfac.piccard.csc.com>

EFF-087 (Rev. 2/2000)