ED 379 692   CS 508 808

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TITLE   The Effect of E-Mail Debate as a Teaching Tool: A
              Pilot Study.
PUB DATE   Nov 94
NOTE   13p.; Paper presented at the Annual Meeting of the
              Speech Communication Association (80th, New Orleans,
              LA, November 19-22, 1994).
PUB TYPE   Viewpoints (Opinion/Position Papers, Essays, etc.)
              (120) -- Speeches/Conference Papers (150) -- Reports
              - Research/Technical (143)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   Communication Research; *Computer Anxiety; *Computer
              Assisted Instruction; *Computer Attitudes;
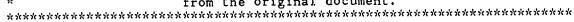   Cooperative Learning; *Debate; *Electronic Mail;
              Higher Education; *Intercultural Communication;
              Undergraduate Students; Writing Apprehension
IDENTIFIERS   *Cultural Sensitivity

ABSTRACT
        D. P. Thompson (1987) pointed out that the e-mail
network can help students work collaboratively, solve problems, and
experience writing as communication in the real situation. This study
examined the impact of e-mail debate on intercultural sensitivity,
writing apprehension, and computer anxiety. Fifty-four students in
two sections of a junior-level intercultural communication class
participated in the 12-week project. Divided into groups, they were
required to participate in debates (following the rules of debate)
that included the following assertions: (1) intercultural marriage is
acceptable; (2) intercultural communication should be part of any
college curriculum; (3) people from different cultures cause problems
in the United States. Several measurement tests were given. The
22-item Intercultural Communication Attitudes Scale (1993) was used
to test participants' intercultural sensitivity. The 26-item
Daly-Miller Test (1975) was used for the measurement of writing
apprehension. The 20-item Computer Anxiety Scale (1990) was used to
measure the degree of participants' computer anxiety. Results showed
significant changes between pretest and posttest in intercultural
sensitivity and computer anxiety, but no significant changes in
writing apprehension. (Contains 14 references and one figure.)
(TB)

The Effect of E-Mail Debate as a Teaching Tool: A pilot study

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Abstract

This pilot study examined the impact of e-mail debate on intercultural sensitivity, writing apprehension, and computer anxiety. Fifty four students in two junior classes participated in the project. Results from t-tests show significant differences between pretest and posttest of intercultural sensitivity and computer anxiety. No significant difference was found in writing apprehension. Plausible explanations were provided. Suggestions for future research was also discussed.

The Effect of E-Mail Debate as a Teaching Tool: A pilot study

Electronic mail (e-mail) is one of the most common forms of computer-mediated communication (CMC) system today. Through a telephone line, computer, and satellite, e-mail messages can reach every corner of the world within several seconds. The e-mail system allows people to communicate in a one-to-one, one-to-many, and many-to-many formats. The system not only provides a powerful and non-traditional tool for students to learn through dialogue and collaboration, but also encourages "students to resist, dissent, and explore the role that controversy and intellectual divergence play in learning and thinking" (Cooper & Selfe, 1990, pp. 849).

The e-mail system has been extensively applied at educational institutions through international networks (Internet) all over the world (Ma, 1994). Dern (1992) indicated that over three million users with 500,000 computers in 33 countries are using e-mail linked through Internet. Using the Internet e-mail system helps people overcome the constraints of time and space on geographically dispersed institutions (Garnsey & Garton, 1992).

Academically, the e-mail system connects campuses in different nations that provides students with an opportunity to communication with their culturally dissimilar counterparts. According to Ma (1993, 1994), exposing students in the international e-mail communication leads to three effects: (1) Participants become better-informed about each other's culture, (2) participants disclose more than they do in face-to-face situation, and (3) the e-mail communication situation is perceived to be more

informational. The three effects indicate that students participate in the international e-mail communication tend to be more open of sharing information which provides them with subject and cultural knowledge. The results were supported by Cohen and Miyake's (1986) study that showed joint participation in the e-mail interaction across cultures can encourage multilingualism and awareness to other cultures. The educational potential of the intercultural e-mail communication is enormous.

Thompson (1987) pointed out that the e-mail network can help students work collaboratively, solve problems, and experience writing as communication in the real situation. Hawisher and Selfe (1991) indicated that by thinking critically and carefully about the technology, instructors can successfully use the e-mail system to improve the modern education, especially student's writing ability. Chen and Wood (1994) further suggested that using e-mail as a learning tool can help students learn the subject matter, improve writing skills, cultivate critical thinking, and reduce the computer anxiety.

Based on the this literature review, the author launched a highly structured project by using e-mail as a debate tool in college curriculum. The project offered an alternative way for learning in college classroom. Through the e-mail debate project, students can achieve educational objectives by connecting the debate and the electronic mail system. The expecting goals for the projects were to help student learn the subject matter, increase intercultural sensitivity, improve writing apprehension, and reduce

computer anxiety.

The subject matter is reflected in the debate resolutions that relate to the class topic. This debate project was conducted in two sections of intercultural communication class at the junior level. Hence, students were learning the subject of intercultural communication via e-mail debate in the class. Those debate resolutions used in this project include: (1) Intercultural marriage is acceptable, (2) Intercultural communication should be part of any college curriculum, and (3) People from different cultures cause problems in the United States.

Intercultural sensitivity refers to a person's ability to recognize and to deal with a culturally diversified world view. It implies a person's willingness, capacity and flexibility to undergo the process of adaptation in an intercultural setting (Chen & Lum, 1994). Seidel (1981) pointed out that an intercultural sensitive person always tries to understand cultural differences, knows how to appreciate cultural differences, and knows how to behave appropriately in culturally different situations. In other words, intercultural sensitivity can be achieved through a combination of cognitive, affective, and behavioral procedures (Parker, Valley, & Geary, 1986). Through the e-mail debate on intercultural issues, students were expected to increase their intercultural sensitivity.

Because students participated in this project were required to send e-mail messages via computer to their counterparts and the instructor regularly, it was expected that, through the practice of the whole semester, their writing apprehension and computer anxiety

will be significantly reduced.

To sum up, this study tried to test the following hypotheses:

H1: The e-mail debate will increase participants'
intercultural sensitivity.

H2: The e-mail debate will reduce participants' writing
apprehension.

H3: The e-mail debate will decrease participants' computer
anxiety.

In addition to these hypotheses, participants were also asked to indicate the degree of their satisfaction to the e-mail debate, to take the class, and to the instructor of the class.

Method

Subjects

Fifty four students (M = 22, F = 32) in two sections of junior-level intercultural communication class participated in this project. The average age is 21.35. Both sections of class were instructed by the same person. Among them, 48 persons never used e-mail before they participated the project.

Procedures*

The e-mail debate project took twelve weeks to implement. At the first week of the class students were instructed to learn how to use the e-mail system, and each class was divided into seven groups with four students in each group. A debate was formed by two groups of students in each class. Each debate team was

assigned a debate resolution regarding intercultural communication issue.

The debate required four file submissions from each group: Constructive argument, refutation argument, rebuttal argument, and executive summary. In the constructive argument (2,000 words) students advanced all the arguments that they want to make complete with reasoning and evidence. The refutation argument (2,000 words) was the second submission in the debate which refers to clashing directly with an opponent's arguments. The rebuttal argument (2,000 words) was the third submission in the debate in which group members defended and extended their constructive arguments, in light of the refutation made against their case. No new arguments were allowed in this stage. The executive summary (1,000 words) was the last submission in the debate in which group members organized all the major arguments in the previous three submission files.

Each debate was given a two-week period of time to each of the first three arguments to prepare, organize, and send the file to their opponents. A week was given to the executive summary. Figure 1 demonstrates a sample schedule of the e-mail debate.

Pre-test data were collected at the first week of the semester after the instructor in each debate class explained the purpose of the debate project. Post-test data were collected at the last week of the semester after the debate projected was completed.

Measurement

The 22-item Intercultural Communication Attitudes Scale,

developed by Chen (1993), was used to test participants' ability of intercultural sensitivity. The 26-item Daly-Miller Test, developed by Daly and Miller (1975) was used for the measurement of writing apprehension. The 20-item Computer Anxiety Scale, developed by Marcoulides and Wang (1990) was used to measure the degree of participants' computer anxiety. The alpha coefficients were .97 for Intercultural Communication Attitudes Scale, .93 for Daly-Miller Test, and .97 for Computer Anxiety Scale.

Results

T-tests were computed to examine differences between pretest and posttest in terms of intercultural sensitivity, writing apprehensive, and computer anxiety. The results show significant differences for intercultural sensitivity [M = 3.37 (pretest), 3.86 (posttest); $p < .005$], and for computer anxiety [M = 3.10 (pretest), 2.50 (posttest); $p < .01$]. No significant difference was found between the pretest and posttest of writing apprehension.

The mean scores for the degree of satisfaction to the e-mail debate was 3.71 out of 5-point scale, 4.26 for the degree of satisfaction for taking the class, and 4.55 for the degree of satisfaction to the instructor of the class.

Discussion

Through a highly structured format of computer interaction, this project investigated the impact of e-mail debate on intercultural sensitivity, writing apprehension, and computer anxiety. Two hypotheses were supported. However, the results do not show significant difference on writing apprehension.

The plausible explanation for the insignificant result is that the 10-week time period between the pretest and the posttest was probably too short to reveal any significant change in the scores. To improve writing ability or writing apprehension will take more time.

The results from the degree of satisfaction is very encouraging. Overall, students like the e-mail debate project and the class. This shows a potential to apply the project to different disciplines. Further, this project can be implemented within the same class, between classes, between different colleges, and between colleges in different nations.

Finally, this pilot study is still in an experimental stage, continuous efforts should be made in order to find out and improve all potential problems encountered in the process of implementing the project.

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A Time Schedule for Conducting an E-Mail Debate

Fall 1993

When	Topic	Resource	Deadline
Week 1	Introduce E-Mail Debate	P. A-E	
Week 2	Form Pairs of Teams Assign Debate Resolution		
Week 3-6	Send Me Your 1st Message Conduct Research and Write Constructive Argument	P. E Library	Sep. 24
	*Exchange Assignment #1 Constructive Argument	E-Mail	Oct. 15
Week 7-8	*Exchange Assignment #2 Refutation Argument	E-Mail	Oct. 29
Week 9-10	*Exchange Assignment #3 Rebuttal Argument	E-Mail	Nov. 12
Week 11	*Exchange Assignment #4 Executive Summary	E-Mail	Nov. 19
+Week 12-14	Presentation		When Ready
* See sample debate for guidance			

Figure 1. A Sample Schedule for Conducting an E-Mail Debate