

Electronic Discussion Groups:

How Initial Parameters Influence Classroom Performance

A study of electronic discussion groups found that initial parameters affected student participation and perceived value

This article presents the results of a study employing asynchronous electronic discussion groups across sections of a required introductory American Government course. Several initial parameters affected the frequency and quality of student participation and the perceived value of “cyber” assignments: initiative (student or instructor), interaction (student-student or instructor-student), and content (text-based or topical). Variation in any one parameter had an impact on the other two and on the students’ evaluation of the strengths and weaknesses of the resulting e-discussions.

Secondary parameters also had an effect: deadlines for required assignments, number of assignments, and “directedness” of the e-discussion assignments (the degree to which each assignment contributed to completion of course papers). These parameters influenced the timeliness, depth, and relevance of the resulting submissions and interactions.

In introducing and integrating computer technology into traditional classroom settings, students and instructors share a common set of perceptions and goals: effective e-discussion assignments should be timely but not overly burdensome, and they should address interesting, relevant material in some depth

and detail. This article explains how the study reached these conclusions.

Assumptions and Conceptual Framework

We based our decision to introduce electronic discussion (e-discussion) as a course component on several premises. First, information technology is not a substitute for teachers or for face-to-face interactions. Young¹ made the case that instructors play a critical role in facilitating the learning process in cyberclasses. They help develop students’ skills in recognizing, organizing, and analyzing data gathered through electronic media.

Second, we believed the student learning experience would be enhanced by using a diversity of communicative media. Etzioni and Etzioni² argued that a hybrid model is superior to either face-to-face or computer-mediated communication alone. Combining their individual strengths in providing interpersonal or cognitive data offsets their respective weaknesses. A recent *Chronicle of Higher Education* article³ observed that different institutions are trying hybrid courses for different reasons, citing research and experience at Harvard that suggests hybrid models can be superior to traditional classes.

As Clark and Brennan⁴ explained, all

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communications require constant grounding to establish the ways in which what was communicated has been understood. The techniques used to achieve grounding differ according to purpose (getting acquainted, passing on technical information) and medium. Different media may impose different constraints or costs on communication, but one medium should not be considered superior to another per se; rather, each medium has advantages and disadvantages.

For example, face-to-face conversation requires co-presence, visibility, audibility, co-temporality, simultaneity, and sequentiality. If these requirements are fulfilled, then face-to-face discussion can provide the basis for an intense exchange of information. However, as anyone who has ever sought to coordinate various schedules to facilitate a face-to-face meeting can attest, meeting the requirements of face-to-face conversations can be a taxing business.

E-mail and electronic discussion forums, in contrast, depend only on reviewability and revisability. These different sets of constraints incur different costs to establish grounding and necessitate different strategies to cope with those costs. E-discussion better accommodates the schedules and preferences of students, as the technology allows

access at times of their choosing and is not dependent on a specific physical place.

Third, our e-discussion design reflects the premise that a dynamic learning environment will motivate students to actively participate and can accommodate their preferred learning style. E-discussion groups have been found to promote several important pedagogical values, including participation, interaction, involvement, and equality. Perhaps most important is that e-discussion has been found to enhance the quality of education by changing the nature of classroom interactions (both instructor-student and student-student). Active learning replaces what is often a passive experience initiated and controlled by the instructor. Furthermore, (asynchronous) textual reproduction of interaction through an electronic medium reduces the participatory bias that continues to exist for minority, female, handicapped, and diffident students.⁵

We see the overriding issue as one of adding value to the educational experience. Given that e-discussions can add value, the problem then becomes how best to structure their use.

From Theory to Practice: Course Design

We consciously avoided adopting e-discussions as merely a course add-on — a gimmick that creates more (in most cases frustratingly unnecessary) work. Nor did we simply instruct students to use discussion forums without any further guidance or encouragement. Like most of us, students seek to follow the path of least resistance in balancing demands on their time. Low voluntary participation rates suggest that students will not use and master IT for computer-assisted instruction and learning just because it exists. Active participation requires incentives.

Integrating e-discussion participation into the course requirements represents the best understood and most effective form of incentive. It also has been shown to increase students' satisfaction with the course and what they thought they learned from it.⁶ Consequently, we

thought it important that participation in e-discussion relate directly to student grade assessment. This arrangement possessed the virtues of clarity and simplicity: students would know exactly what would be required of them and would respond accordingly.

Ideally, e-discussion should take full advantage of the medium's strengths, not only helping to reinforce course content, but also exposing students to diverse viewpoints.⁷ As a consequence, we took great pains to design a system that took full advantage of what the medium had to offer — the fact that e-discussions do not require co-presence, visibility, audibility, co-temporality, simultaneity, or sequentiality for a worthwhile discussion.

To both integrate e-discussion within the course curriculum and encourage a diverse set of interactions, we created four theme groups (see the sidebar "The Four Themes") connecting content and students to each other over the duration of the course. The theme group, composed of individuals from each of the participating classes, functioned as a student's virtual class in the completion of cyber assignments. We explain the theme groups in more detail in the next section.

These theme groups are an innovative aspect of the study that we have not encountered elsewhere, although Swan et al. found that limiting the number and increasing the consistency of course modules improves learning outcomes.⁸ It seemed to us a valuable means of encouraging a diverse exchange of opinions and cooperative learning by allowing students to compare notes and perspectives free of the interpretive authority of any one instructor. The theme groups ensured a mix of students who would interact and respond to each other as a "Community of Learners" in completing their postings to the e-discussion.⁹

We designed our electronic discussions to take place outside of the formal classroom, supplementing and enriching classroom interactions rather than supplanting them. Participating instructors could set their own requirements and assign their own weight to the cyber

assignments, but each had to conform to the basic outline of assigning students to theme groups with some type of interactive requirement.

Instructors incorporated e-discussion content into the classroom in whatever manner best matched their preferred teaching methods and styles, using class lecture material or conversations, essay exam questions, or course papers as vehicles. E-discussions became a jumping-off point for other in-class activities or out-of-class assignments as an integral part of the course.¹⁰ By keeping the focus on

adding a medium, rather than changing pedagogy or course content, this innovation generalizes to multiple teaching situations and is easier and more comfortable for instructors to adopt.¹¹

From Initial Parameters to Performance

Our analysis focuses on identifying design parameters for managing e-discussions and assessing their consequences for our students and learning objectives. Decisions about how to implement e-discussions can be made

with forethought or on the fly, consciously or instinctively. Instructors with different learning objectives and course goals will approach decisions about design and management of the e-discussion groups differently. These produce real differences in the nature and quality of the course experience.

Instructors also may find that the values they have sought to maximize through the initial parameters of the e-discussion groups are not as effective as some other combination of values. We believe — and our experience bears out — that there is no one right way to do e-discussion groups. Rather, different trade-offs exist, for example, between student initiative and policy expertise, between degrees of relevance and degrees of interest, and between the inherent value of the experience and value in achieving other course objectives. Such trade-offs must be acknowledged to maximize the value of e-discussion. Given the potential for both positive and negative outcomes (for example, taking advantage of the latest means of enhancing the educational process versus frustration with a new technology), one's decisions about design parameters should be guided by the educational values and goals the instructor has decided are most important for the students.¹²

The two key parameters we experimented with were initiative (student or instructor) and content (text-based or topical). Another possible parameter is the primary type of interaction (student-student, instructor-student, or peer mentor-student), which in this case did not vary from course to course given that each course sought to use e-discussion primarily as a means to foster student-to-student interaction. One course section featured student initiative with topical content derived from the Internet. Another used instructor initiative in combination with topical current events material. The third also employed instructor initiative, but with a large emphasis on textual content.

Minor variations involved deadlines for required assignments, student distribution among theme groups, number of assignments, and the degree to which

The Four Themes

Four theme groups connected students and content across each of the three participating sections of the required introductory American Government course. Between 5 and 10 individuals from each section combined to create a virtual class (one for each theme) for the purpose of completing cyber assignments related to their theme.

- *The Role of Government.* This theme asks students to consider where individual freedom leaves off and government (community or national interest) takes up. How much government do we need, in what areas of life, at what level of jurisdiction (national, state, or local)? This theme has relevance to the constitutional debate and evolution of federalism, government regulation, tax policy, and many social issues.
- *Public Morality.* This theme asks students to consider where the U.S. government reflects moral arguments or assumptions and how it upholds moral values. This theme has relevance to documents such as the Declaration of Independence and The Constitution, the judicial and legal system, civil rights and liberties, the

ethics of public officials (president and presidential candidates, members of Congress), public opinion, and policy debates about abortion, welfare, human rights, and the like.

- *The Marketplace of Ideas.* This theme asks students to consider the protections for and limits on freedom of speech. This theme has relevance to issues of political tolerance for minority or unpopular viewpoints and for dissent or protest, including civil disobedience, freedom of the press, limiting campaign contributions or advertising, political parties and electoral competition, the role of interest groups, and public opinion.
- *Political Equality.* This theme asks students to consider how much equality democracy requires and how much inequality it can tolerate. What kinds of equality or inequality should government address or redress: equality of rights, opportunity, or circumstance, and through what vehicles? This theme has relevance to questions of representation and voting rights, due process and equal protection of law, civil rights, and social policies such as taxation, government regulation, and welfare.

each assignment contributed to completion of course writing assignments.

Before turning to the perceived problems and evaluation of these parameters, we briefly specify the overall framework of the e-discussion groups.

The e-discussion consisted of students enrolled in three separate Introductory American Government course sections taught by three different instructors. The demographics of our sample reflect the student body of Bentley College, a New England business college — mostly freshmen and primarily business majors.

To facilitate the mixing of students from different sections, we constituted each theme group from students across the three instructors' sections. In this first iteration, we failed to foresee that the law of averages might not apply to how students would distribute themselves across the theme groups. One class did manage to achieve parity in its distribution of members to the groups through the simple expedient of using a sign-up sheet with a limited number of entries under the heading for each theme. As a practical matter, this proved a simple solution to the difficulty. In a subsequent semester, a different instructor devised an alternative strategy of asking students to provide preference orderings for their theme group choices, then allocated assignments with an eye to keeping the distribution balanced.

Assessment

Some technical problems occurred, of course. Undoubtedly these will vary with the software (in our case Blackboard), the institution's computer equipment, and the equipment's capacity. Most problems were minor, confined to the beginning of the semester. They typically involved the initial log-in and registration procedure. In subsequent semesters we found that the one-time use of a high-technology classroom to register and log students into the system eliminated virtually all of these operational problems.

Other technical difficulties could be resolved quickly by technical support staff when the capabilities of individual instructors did not suffice. We found that the class whose instructor was most

experienced with e-discussion technology reported less-significant problems, on average, than those in the class whose instructor had the most limited experience with computers.

Tables 1 and 2 report data from the survey instrument we used to assess student perceptions of their e-discussion course experience at the end of the semester. We administered the survey in all three classes. The questions asked students to rate the value of the electronic discussion group on a scale of five categories. The number under each ranking shows the number of student responses, with the mean in the last column.

Table 1 shows responses to six questions on the value of electronic discussion groups in achieving specific objectives. The first five questions captured instructor learning objectives (understanding, interest, new learning, student interaction, and IT comfort/skill), and the sixth covered the common student objective of earning a good grade. The five ranking categories ranged from very poor (1) to excellent (5). Aggregating across all three course sections, student responses distribute normally around a mean of about 3 (the rating "good" on the five-point scale). The remaining questions, in Table 2, focused on the value of discussion group comments compared to papers based on them and the Blackboard delivery vehicle, which we and our institution were beta testing in the spring semester of 2000.

Note that in Table 2, each of the three questions uses a different scale. For the first question, which asked students to assess the value of posting e-discussion group comments relative to writing papers based on them, 1 = discussion group comments were much more valuable than doing the papers, 2 = discussion group comments were somewhat more valuable than the papers, 3 = discussion group comments and papers based on them were equally valuable, 4 = doing papers based on discussion groups was somewhat more valuable than the comments, 5 = doing the papers was much more valuable than posting the discussion comments.

For the second question in Table 2, which asked students to describe the frequency with which they used the Blackboard course Web site, 1 = every day, 2 = a few times a week, 3 = once each week to week and a half, 4 = several times over the semester, 5 = never.

For the third question in Table 2, which asked students to describe any problems they encountered in using the Blackboard Web site, 1 = never able to use Blackboard successfully, 2 = multiple and repeated problems throughout the semester, 3 = some significant problems from time to time, 4 = some minor problems from time to time, 5 = a few problems at the beginning.

In Table 1, "increased interest" in the course and subject matter received the lowest rating — hardly surprising given the nature of the course. The introductory American Government course is a requirement and typically draws a comparatively disinterested response on course evaluations.

Students responded very favorably to the incentive structure for the e-discussion, attaching the highest mean value to the grade improvement question. This was not simply a function of assigning disproportionate weight to postings (which counted only between 11 percent and 25 percent of their course grade) or the lack of an evaluative, quality component in grading them. Rather, it seems that students derived non-grade benefits (for example, positive instructor reinforcement or novelty) from the exercise. Having invested a significant amount of time at regular intervals, they inferred a larger positive grade impact than warranted by the percentage of the grade derived from cyber assignments alone. This result implies that the cyber assignments aided student understanding of the material over and above their direct impact on grades.

While we would not characterize an overall "good" verdict as an unqualified success, we certainly found it encouraging. In particular, the positive response to the innovative aspect of virtual classes engendered through the creation of cross-class theme groups led us to continue and fine-tune the experiment during subsequent semesters. We

Table 1**Value of E-Discussion Groups for Achieving Objectives**

Objective	1 (Very Poor)	2 (Poor)	3 (Good)	4 (Very Good)	5 (Excellent)	X (Mean)
Understanding course concepts and other assignments	2	11	44	16	2	3.07
Increasing your interest in the course and its subject matter	2	17	39	16	1	2.96
Learning something new	3	6	38	22	6	3.29
Interacting with other students, in your own and other classes	4	19	30	17	5	3.00
Becoming more comfortable and proficient with computer technology	2	16	34	16	7	3.13
Improving your grade in this course	2	7	24	24	17	3.64

Table 2**Assessment of E-Discussion Groups and Web Site**

Objective	1 (High)	2	3	4	5 (Low)	X (Mean)
How do you assess the value of discussion group comments relative to papers based on them?	21	15	17	11	10	2.65
Which best describes how often you have used the Blackboard course Web site?	4	17	24	28	2	3.09
Which best describes any problems you may have had using the Blackboard Web site?	1	5	9	26	34	4.16

repeated the experiment in the fall of 2000 and every subsequent semester. The project now also includes sections of an introductory Philosophy class that likewise fulfills general education requirements and enrolls first-year students. To accommodate the increase in students, we expanded the number of theme groups to five.

Three major parameters could have differentiated the e-discussion management approach used in each class: initiative, interaction, and content. Since the e-assignments required commenting on each other's postings, student-to-student interaction occurred in all three classes. What differed across class sections was whether the stimulus to which students responded was derived from a text, an instructor-generated current events question, or student-identified Internet material. In other e-discussions, and in the Philosophy class that partic-

ipated in e-discussions the following semester, instructors also posted comments or responded individually to student postings. A peer mentor also could join the interaction.

In this case study, the source of initiative (student or instructor) and type of content (text versus topical current event or Internet material) were linked. The breakdown was as follows: the instructor of Class A had students locate and select material relevant to their discussion group theme from online news sources. The instructor of Class B framed questions around current events, such as the jury verdict in the New York City police shooting of Amadou Diallo or the controversy concerning the flying of the confederate flag over southern statehouses. The instructor of Class C also employed the directed technique used in Class B, but in several instances instructed his students to respond to

textual materials that figured heavily in course papers independent of the e-discussion submissions. That content consisted of assigned articles from a reader on American public policy issues.¹³

Each of our three initiative/content choices had advantages and disadvantages. In Class A the students had to take the initiative by selecting topical material for e-discussion. Class A scored just above "good" on interest (mean = 3.045), new learning (mean = 3.318), and frequency of class Web site use (mean = 3.364) despite fewer (bi-monthly) assignments. (Table 3 reports all scores in full.) Class A also scored moderately on student interaction (mean = 3) and the value of paper assignments (mean = 2.5).

The greatest drawback to the approach used with Class A was the relevance of material that students submitted to fulfill the requirement that they post topical

Table 3**E-Discussion Survey Results by Class**

Topic of Question	Class Section	No. of Respondents	Mean Score	Standard Deviation
Understanding	A	22	3.045	0.154
	B	28	3.179	0.155
	C	25	2.960	0.147
Interest	A	22	3.045	0.154
	B	28	3.071	0.162
	C	25	2.760	0.145
New Learning	A	22	3.318	0.191
	B	28	3.464	0.158
	C	25	3.080	0.182
Student Interaction	A	22	3.000	0.197
	B	28	3.214	0.181
	C	25	2.760	0.210
IT Comfort/Skill	A	22	3.455	0.194
	B	28	3.179	0.179
	C	25	2.800	0.183
Improve Grade	A	22	4.000	0.707
	B	28	3.714	1.049
	C	25	3.240	1.128
E-Discussion versus Papers	A	22	2.500	1.185
	B	28	2.036	1.261
	C	25	3.500	1.319
Frequency Used	A	22	3.364	0.155
	B	28	2.500	0.182
	C	25	3.520	0.165
Problems	A	22	4.409	0.170
	B	28	4.143	0.143
	C	25	3.960	0.255

news material for their theme group. For example, the “Public Morality” e-discussion postings focused on abortion to the near exclusion of other topics. In other cases, students chose dated material or topics obliquely related to their theme, such as local or international events that did not readily connect to the course’s focus on American

government and politics at the national level. This aspect of student initiative in Class A complicated the resulting student interaction with the other two classes. This operational flaw was corrected in following semesters by requiring students to comment explicitly on the relevance of submissions at the time of posting.

Overall, however, the sheer variety of topics addressed by the students compensated for their lack of expertise. While students cannot match the instructor’s expertise on any given topic, they are often better judges of what is interesting and accessible to their peer group. This explains Class A’s relatively high scores regarding interest, new learning, and frequency of use. It seems that the high score on IT comfort and skill (mean = 3.455) and perception of minor IT problems (mean = 3.960) resulted from the requirement that students take the initiative in generating discussion materials. Evidently the students became more self-reliant when circumstances required it.

Students working closely with a text in Class C felt that the assignments were instrumental in enabling them to complete their course papers (mean = 3.5). This result dovetailed with the instructor’s primary desire that the students’ employment of e-discussion yield a certain degree of policy expertise. However, the focus on textual material also may have had a dampening effect on student interaction: students in Class C scored lowest in student interest (mean = 2.76) and interaction (mean = 2.76). Apparently the authority of the text limited opportunities for student debate and self-expression. These perceived drawbacks with respect to interest and interaction could be moderated in practice through the use of a text (or texts) that provides readings pro and con.

Students responding to instructor-generated current events questions in Class B scored highest for interest (mean = 3.071), new learning (mean = 3.464), and interaction (mean = 3.214). This may be attributed to the high relevance of the issues ensured by the instructor’s crafting of topical questions addressing salient weekly events. This result also reflected the instructor’s emphasis on discussion and suggests a measure of success in achieving focused exchanges on selected current events.

However, this same class also scored lowest in the value of assignments for the course paper (mean = 2.036) and the frequency of use (mean = 2.5) despite the fact that this class (along with Class

C) received weekly assignments. Perhaps it was difficult for students to discern larger themes and value in assignments amid the ebb and flow of weekly events. Yet, as discussed in the next section, reducing the frequency and current events focus seemed to deprive the postings of some of the spontaneity students associate with interactivity.

A variety of other, smaller management issues were relatively easy to alter so as to enhance the quality of the e-discussion experience. These minor parameters included timeliness of required assignments, number of assignments, and the “directedness” of the e-discussion assignments.

In terms of timeliness, regular due dates were best, not only for encouraging timely completion of assignments, but also for stimulating the back-and-forth of virtual discussion through the Web site. Without firm deadlines, a small but significant number of students simply waited until the last week of the semester to complete all the required assignments simultaneously. These students likely would not have undertaken even the perfunctory completion of assignments if not for potential grade sanctions.

Rectifying the tardiness of submissions was easily accomplished by setting deadlines and imposing sanctions for late submissions. The one class to exercise such a policy experienced no difficulties with regard to timeliness. Our finding is consistent with other research concluding that selective incentives matter — students respond to them, and incentives can be changed to increase participation.¹⁴

With regard to the number of assignments required, instructors took two approaches: biweekly (every two weeks) and weekly assignments. Weekly assignments might be expected to encourage better and more regular contributions because the assignments would quickly become an accustomed part of the weekly routine. This turned out not to be the case, as students seemed to suffer from e-discussion fatigue.¹⁵ The same could be said of the instructors, who found weekly postings a labor-intensive undertaking.¹⁶

This is consistent with research on the heightened cost of attaining grounding during communication when using means that are asynchronous and lacking in co-presence, visibility, audibility, co-temporality, simultaneity, and sequentiality. E-discussions yield better results when assignments “play to the strengths” of electronic communication forums: fewer, more detailed and in-depth assignments that take advantage of the reviewability and revisability of submissions in achieving a grounded understanding among students.

The following semester’s iteration of e-discussion suggests there is a cost associated with changing the number of assignments to reduce the fatigue factor. When we decreased the number of required postings from 10 to 6, students’ ratings of their interactive value decreased. This result underscores the point that choices among e-discussion parameters involve trade-offs.

The degree of “directedness” of the e-discussion assignments (how much each assignment contributed to completion of a course paper requirement) resulted in measurable differences in student perceptions regarding the worth of e-discussion versus the worth of paper assignments (means for the groups were $A = 2.5$, $B = 2.036$, $C = 3.5$). These findings can be attributed in part to the different number of assignments required of students and in part to the differences in deadlines. A larger number of required postings, in some cases submitted in close succession at the end of the semester, had an impact on the length of comments and depth of analysis in them.

Finally, and perhaps most important, the students’ perceived value of the e-discussion relative to required papers varied with whether the class relied on textual or topical material to provide context for e-discussions. The current events focus of Class B resulted in the highest student marks on the comparative value of the e-discussion. Connecting the e-postings and papers to a text resulted in the highest student marks on the comparative value of the course paper requirement. This finding supports the contention that e-discussion

will reinforce course learning objectives and content depending on the decisions instructors make about management issues such as those we have identified.

Conclusion

In retrospect, the differences in the results we found are a logical consequence of the deliberate decision to allow for flexible implementation by instructors with different aims within different course settings. Each instructor in this experiment achieved those learning objectives he or she had emphasized most.

The instructor of Class A wanted students to take the initiative in engaging one another on topics of interest to them and to learn from one another. The primary aim was to hone communication and critical reading skills valuable to the life of a democratic citizen.

The instructor of Class B was more interested in enhancing discussion and critical reasoning skills. Choosing a directed learning approach led to a great deal of interaction, with discussion initiated by having students respond to questions prepared by the instructor. This approach was much more conducive to learning about particular current events than the one used in Class A.

The instructor of Class C was less concerned with the process of students interacting than with the learning product, in this case, course papers. As in Class B, the instructor initiated this approach, but Class C was the only one that expressly incorporated text-based content.

Some findings have general applicability across the different approaches to e-discussion management. Fewer and longer assignments spaced further apart were more effective than more and shorter assignments spaced closer together. Also, student initiative was a more practical and less demanding alternative method of managing e-discussions. This should be good news for professors who find the pedagogy too time-consuming, particularly if content initiative is channeled more productively through the use of supplementary texts or more stringent relevancy requirements.

The three approaches to e-discussion

group management reported in this study do not exhaust the possibilities. Other pedagogical aims exist apart from enhancement of student initiative, discussion skills, or policy expertise. Examples include the assimilation of material and the application of principles or concepts to new situations.

Such varied aims may prompt different combinations of the parameters identified. For example, an instructor might require students to find examples that demonstrate a given principle learned in class or to summarize class material online in constructing a student-created “study bank.” Instructor A successfully employed the study-bank option previous to this study. Such an “application of principles approach” has the advantage of connecting student initiative to the authority of a text, while reducing time demands on the instructor. In future iterations of the e-discussion we hope to enlist peer mentors from the previous semester, one for each theme group, both to initiate discussion and to interact with the students currently enrolled in our classes. Indeed, Sawyer recommends using student experts both as technical assistants and as role models.¹⁷

While printed texts, current events, and online material are widely used in introductory American government courses today, instructors can choose from many kinds of content and associated delivery vehicles. Class lectures, discussions, videos, and databases all could generate material for e-discussion postings, an approach that is the inverse of using e-discussions to augment and reinforce primary course content. Either way, an instructor will get the best results when pedagogical techniques are mutually reinforcing.

We have had some success experimenting with this idea in our classes. We found the theme groups to be an extremely useful device for this purpose. Students could be asked to incorporate their theme group’s perspective in answering an essay question or defending a position during a class debate, for example. In the final e-discussion paper (which could be posted and shared), many of Instructor B’s students reported



E-discussion is a versatile pedagogical application of technology-assisted communication.

that the most useful and interesting assignment was a class role play. Group members met outside of class and presented during class on a pending U.S. Supreme Court case, looking at it from the perspective of their e-discussion theme¹⁸ (see the sidebar “Sample Class Activity Using E-Discussion Content”).

In our experience e-discussion as a classroom technology does not limit instructors to any given approach, but it does make those approaches that stress participation, interaction, and involvement on an equal basis far easier to implement successfully. This is particularly so when e-discussion is combined with material (regardless of medium) that presents different perspectives for analysis. Even courses in the natural sciences or dealing with technical subjects could benefit from an appropriately tailored e-discussion that uses techniques such as study banks or application of principles, or that requires students to do team research projects or employ the case method. We have tried to demonstrate that e-discussion is a versatile ped-

agogical application of technology-assisted communication. It need not be configured as the academic equivalent of “chat,” as it often has been implemented and deservedly criticized.

Based on our course experiences, we believe that e-discussion should not be designed as a stand-alone or add-on course feature. It requires forethought about course learning objectives and about how an e-discussion advances them. Our study shows that decisions about e-discussion management have intended and unintended consequences, affecting and affected by student behaviors. In designing an e-discussion, instructors need to be conscious of the trade-offs between

- initiative and policy expertise,
- degrees of relevance and degrees of interest,
- directedness of study and opportunity costs associated with providing detailed direction, and
- the inherent value of the e-discussion experience versus its worth in achieving other course objectives.

When introducing and integrating computer technology into traditional classroom settings, students and instructors should share a common set of perceptions and goals regarding the aim of effective e-discussion assignments. In terms of the operational management of e-discussion, instructors should take advantage of the strengths of the communicative medium through fewer but more involved assignments.

Finally, the use of theme groups to create virtual classes has potential for actually breaking down the walls of the classroom and opening up the discussion to the views of students from various classes, disciplines, or geographic locales. Our initial findings suggest this would encourage initiative, diversity, and interest in the resulting discourse. *e*

Endnotes

1. J. Young, “Computers and Teaching: Evolution of a Cyberclass,” *PS: Political Science & Politics*, 31 (3), 1998, pp. 568–572.
2. A. Etzioni and O. Etzioni, “Face-to-Face and Computer-Mediated Communities, A Comparative Analysis,” *The Information Society*, 15, 1999, pp. 241–8.

Sample Class Activity Using E-Discussion Content

- Read the article on the case assigned to your class theme group. There are five cases, one for each of 5 theme groups: Role of Government, Public Morality, Marketplace of Ideas, Political Equality, and Law and Order.
- Allocate the following roles to the members of your class theme group: news reporter, lawyer(s) for the individual or group whose liberties or rights are at issue, lawyer(s) for the government/authority (police, school, employer, etc.) in conflict with or over those rights, Supreme Court Justice(s), and theme group interpreter.
- Discuss by e-mail or meet to prepare your roles and group presentation. You will have 5–10 minutes before we start to compare notes and get

organized in class. Each of the five theme groups will have about 10 minutes to present on the questions about their assigned case as follows:

1. Reporter

At outset, summarize what happened, the key events and history of this case or legal issue. At end, wrap up the decision or outcome. Prepare a (one-page) handout to give the class.

2. Lawyers

What is the Constitutional clause, amendment, or federal law at issue that supports your argument and side of the case? Why should the Court rule in your favor? What's wrong with the argument or legal interpretation of the other side?

3. Class Observers

Before the verdict is announced, you will participate in a public opinion poll

on how the case should be decided. The Justices will be in recess deliberating at that time.

4. Supreme Court

Question the lawyers for each side as they present to (a) make sure you understand all the facts of the case and their implications and (b) clarify or challenge their arguments and reasoning. Make a decision on the case and give your reasons.

5. Theme Group

How is this case or issue relevant to your theme group? Remember, your theme group won't necessarily see this in the same way as lawyers or judges. There is a difference between what governments and politics require, and morality or equality, that constitutions and laws cannot achieve or have overlooked.

3. J. R. Young, "'Hybrid' Teaching Seeks to End the Divide Between Traditional and Online Instruction," *The Chronicle of Higher Education*, XLVIII (28), March 22, 2002, pp. A33–34.
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16. J. C. Green, "Internet in Class: Help or Hindrance?" a paper presented at the 2000 Annual Meeting of the American Political Science Association, August 31 to September 3, Washington, D.C. Subsequently revised by the author and separated into two papers. Contact the author by e-mail at J.Green@tcu.edu to obtain copies.
17. J. Sawyer, "Interweaving Face-to-Face Student Contact with an On-Line Class Presentation Format," a paper contributed to the Teaching in the Community Colleges Online Conference Trends and Issues in Online Instruction (Kapiolani Community College, April 1997); ERIC Document Reproduction Service No. ED 413893.
18. Ibid. This exercise is similar to an approach recommended by J. Sawyer in 1997. To obtain copies of additional course materials, sample discussion threads, and student postings, interested readers may contact C. B. Williams at Bentley College.

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