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TEACHING BRIEF

A Protocol for Online Case Discussions

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INTRODUCTION

A well-conducted case method discussion has an intensity and level of student involvement that few other teaching techniques can match. Given the highly interactive nature of such discussions in the classroom, it is reasonable to wonder if case method teaching can ever be conducted effectively in an online setting. In this brief, a protocol for adapting the case method to online asynchronous discussions is presented. In addition, results of applying the protocol in a series of case-method graduate business management information systems (MIS) survey courses are summarized.

PROTOCOL

The first decision that had to be made in bringing case discussions online was that of synchronous versus asynchronous discussion mode. There were three justifications for choosing asynchronous discussions: (1) the synchronous mode tool available, text chat, would have stripped out all the richness of a classroom discussion—making it a poor substitute for the original; (2) synchronous chat, by its very nature, is constructed of staccato bursts of text not longer than a line or so—very different from the more lengthy student contributions typical of a classroom; and (3) any synchronous tool would have eliminated the freedom-of-time benefits derived from discussing a case online.

Having chosen asynchronous mode, the duration of each discussion was increased from 75 minutes (a single class period) to roughly one week. The transition also required a number of changes to the traditional classroom protocol. The philosophy was to design a *different* form of discussion, one that leveraged the strengths of asynchronous technologies, rather than merely trying to replicate classroom processes—minus the energy that is the hallmark of a well-orchestrated case discussion.

The first protocol change affected the initiation of the discussion. Rather than calling upon a single student to "open" the case, 4–5 students were each assigned a topic to discuss and were given 24–48 hours to open a discussion thread on that topic (see Appendix A). Assigning multiple topics allowed discussion themes to develop in parallel, rather than sequentially. It also enabled more complete coverage of the

issues related to the case study. In the classroom, the instructor is always faced with the trade-off between (a) allowing fruitful interchanges to continue and (b) moving on to ensure all key issues raised by a case are discussed. Parallel threads reduce the inevitability that such a trade-off will be necessary.

A second change involved the nature of instructor intervention. The "ideal" case instructor does not lecture using the case as a backdrop. Instead, he or she uses subtle feedback (e.g., smiles, body language, stern glances) to direct the discussion—acting as a conductor rather than a soloist. In online asynchronous discussions, the ability to provide such subtle direction is almost entirely absent. Thus, the instructor is left with two choices: respond directly to student posts (with an assessment, argument, or leading question) or sit back and watch, in the hope that a student will do so.

The "respond directly" technique proved to be both impractical and inconsistent with the premises of the case pedagogy. When attempted, what emerged was a series of independent but concurrent dialogues between instructor and individual students—much as if the discussion had been conducted by e-mail. Not only did the process place unsustainable time demands on both instructor and student, it also violated the peer-based learning premise of the case method. Classroom case discussion leaders are often warned against being too directive (Barnes, Christensen, & Hansen, 1994, p. 25):

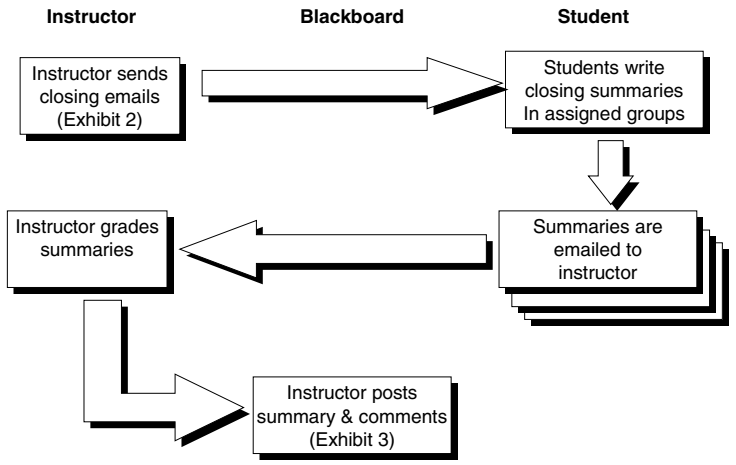
> If the instructor lays out a step-by-step outline for the discussion—orally or on the blackboard—the class picks up a clear signal: follow my lead or be lost! Any partnership between leader and followers is clearly a limited one.
>
> In contrast, when the instructor invites students to set the agenda for the day's discussion, the openness of the invitation conveys a different message: you, the students, bear the responsibility for this discussion. It belongs to you.

If student "ownership" of online discussions were to be established, the immediate convergence of opinion that tended to occur after the instructor expressed an opinion had to be avoided.

To avoid stifling discussion, the instructor established a policy that he would not reply to, nor comment upon, any individual student post until at least 24 hours had passed. From the point of view of the students—being graded on participation—the advantage of the policy was that it gave them time to make their own observations before the instructor effectively coerced diverse opinions into convergence by posting the "right answer" (whether by intent or not). Twenty-four hours also proved to be enough time so that most posts that warranted a response got one before the instructor became involved. The approach also had an unfortunate side effect, however. The instructor's online "monitoring" activities were invisible to students. A student could therefore conclude that the instructor had disengaged from the discussion, even when the instructor was diligently examining posts several times a day.

The final modification to the discussion protocol involved the procedure for bringing the discussion to a close (Figure 1). In the classroom, the process of reaching closure varies considerably. Some instructors use the end of the class as an opportunity to lecture about the case. Others prefer to continue the peer-oriented

Figure 1: Case-closing process.



process, attempting to coax closure out of discussion participants. Interestingly, asynchronous discussion technologies make it possible to do both.

To close a case, students were divided into random, numbered groups toward the end of each discussion. E-mail was used to notify them of their group assignments (Appendix B). Each group then prepared a summary of recommendations and lessons learned. Theses summaries were then e-mailed to the instructor. The instructor graded these summaries and wrote comments on each. Then, to close the case, the instructor posted: (1) his thoughts on the case and the discussion; (2) the summaries themselves (anonymously, specifying only group numbers); and (3) his specific comments on each summary, ranked by group (Appendix C). One particular advantage of this closing approach was that it made participation grading far more transparent to students. It did not take students long to learn, for example, that the instructor could assign top marks to diametrically opposed recommendations provided that they were equally well supported. Similarly, the "right answer" could and would be criticized if offered without justification.

Normally, during the process of assessing closings the instructor also classified and graded each posting. A time-consuming process, grading involved extracting the discussion to an MS Access database using home-grown software, classifying each submission, then assigning a default grade of 1 to every nonopening post. Each post was then reread and grades adjusted—scores higher than 1 were classified as "distinctions" while scores of 0 were awarded to nonproductive or administrative postings. Midway through the semester and at the end of each semester, the instructor used the database to generate a report providing students with quantitative feedback on their performance, as shown in Figure 2.

OUTCOMES

In assessing the effectiveness of the protocol, it is useful to examine a graduate "Introduction to MIS" course where a number of different sections (all having

Figure 2: Sample online case discussion grade summary sheet.

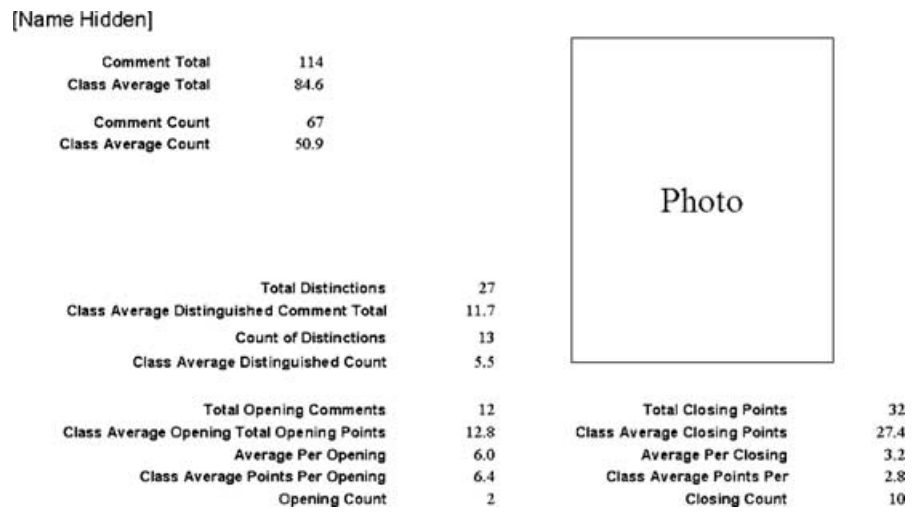


Table 1: Section descriptions and selected responses from end-of-class survey.

Value	All in Class 1	Light Online 2	Heavy Online 3	All Online 4
Number of sections	1	1	2	1
Number of classroom cases	18	11	3	0
Number of online cases	0	4	9.5	10
Mean score on concept grouping test (out of possible 100%)	29.0%	35.3%	41.4%	39.8%
Felt participating in case discussions would make them a better manager*	4.37	4.88	4.82	3.95
Felt they learned more from peers than from professor*	1.47	2.38	3.12	4.25
Felt professor should have been more active in case discussions*	1.37	1.77	2.12	3.9

*Scale: 0 = strongly disagree; 3 = neutral; and 6 = strongly agree.

between 20 and 24 students) were taught by the same instructor. These sections featured different mixes of classroom and online discussions, ranging from "all classroom" to "all online," as shown in Table 1. In all mixes, discussion participation represented 50% or more of each student's grade.

When comparing the results, the outcomes of using the online protocol proved to be generally positive, but came with some important caveats. On the positive side, as illustrated in Table 1, scores on a difficult concept grouping test showed no

significant differences across approaches, nor did perceived benefits of the course (the "better manager" question). What was highly significant ($p < 0.01$) was the degree to which students perceived peer-based learning increasing as the online percentage increased—suggesting that the asynchronous approach was highly faithful to the spirit of the case method. The complement to the perception of increased peer-based learning was an equally significant perception that the instructor should have been more involved that grew with online case percentage. Such a perception, unfortunately, tended to manifest itself in student evaluations—particularly in the pure online class.

The most critical caveat to the online protocol relates to time demands. A typical 20–25 person class generated about 90 postings for a single case, with the total length of a completed discussion being 30–40 pages of single-spaced text. Monitoring, participating, and grading such a discussion might take 8 hours for the

Table 2: Deficiencies in current asynchronous technologies for case discussions.

Deficiency	Explanation	Tool Enhancement to Remedy Deficiency
Inability to grade individual posts	Requires instructor to separate reading and grading activities, duplicating effort	Provide ability to assign private grades and comments to posts, visible only to the post's author and the instructor
Inability to identify posts uniquely	Most threaded discussion technologies do not have a unique post identifier. This makes it difficult to refer to other posts in a complex discussion	Add a numbering scheme (e.g., SiteScape used an outline scheme) and the ability to make references "linkable" within a discussion
Inability to provide nonverbal feedback	Classroom instructors can subtly conduct discussions with body language. Discussion groups require explicit posts	Provide instructor with the ability to attach emoticon-like graphics to a post as a signal to discussants
Inability to classify posts	Especially where participation is rigorously graded, different types of posts (e.g., openings, replies, questions, kudos) need to be handled differently. Current technologies do not allow classification of posts	Provide participants and instructors with the ability to classify postings. Instructor should be able to specify the list of allowable classifications for both roles
No convenient archival format	The ability to save discussions offline, e.g., in a database format, would offer great benefits in grading and analyzing discussions. At present, this can be accomplished only through home-grown, error-prone software	Provide a vendor-neutral format for downloading discussions from tools such as WebCT and Blackboard. XML standards already exist for such downloads, but are not readily accessible to instructors

first use of a case, 6 hours for subsequent uses (opening topics and general summary comments could often be reused). One source of the problem was limitations in the group tools, preventing grades, and private comments from being attached to the postings. The result was that monitoring and grading involved considerable duplication of effort, in the form of rereading posts.

The opportunity here is that many of the challenges of online discussions can be addressed with minor tool enhancements, such as those presented in Table 2. The instructor estimates that 2 hours per case could be saved with such enhancements. The result would be a technique both pedagogically sound *and* practical. [Received: April 2004. Accepted: June 2004.]

REFERENCE

Barnes, L. B., Christensen, C. R., & Hansen, A. J. (1994). *Teaching and the case method: Text, cases, and readings*. Boston, MA: Harvard Business School Press.

APPENDIX A: EXAMPLE OPENING REQUEST

Sent: Sat 3/22/2003 3:09 PM

Congratulations!

You have been selected to open the Xerox case (as per the revised schedule): I would like each of you to prepare an opening on the following topic:

1. Karl: Should the outsourcing agreement proceed, or would you recommend pulling back?
2. Karleen: What are the benefits of the outsourcing arrangement to both sides (Xerox, EDS)? Does either side appear to be realizing a disproportionate share of the benefits?
3. Mark: What does it signify that hundreds of person-weeks were devoted to drafting the outsourcing agreement between EDS and Xerox yet the breakup provisions were handled in a single morning? Do you view this as a good omen or a bad omen?
4. Robert: What are the potential benefits and drawbacks of the strategy whereby EDS manages existing (legacy) systems while Xerox focuses on developing the systems of the future? Can you see any implementation issues that are likely to be addressed.
5. Jason: Why does EDS feel it can make a profit running Xerox's IT processes for less money than Xerox is currently spending?

By Tuesday, 3/25/03 at 7PM I'd like each of you to post an opening to the Xerox discussion group, opening a new thread. Please choose your own title for the thread, but try to focus on your assigned topic. After you have posted your opening, feel free to participate in the discussion, just like every other student.

Thanks, and good luck!

Regards,

Grandon

APPENDIX B: CLOSING ASSIGNMENT MESSAGE SENT BY INSTRUCTOR TO STUDENTS BY E-MAIL

Sent: Mon 3/31/2003 7:00 PM

[List of student names—randomly generated for each case—omitted]

Congratulations!

You have been randomly selected to close the Xerox case as Group 1. I would like to have the closings done and sent to me using ∗private∗ email by Wednesday, 4/2, at 7PM.

You should endeavor to include your key recommendations and/or lessons learned in your summary. Be sure to identify the key elements of the case and/or your analysis leading to your conclusions. Outline form is fine.

Ideally, your summary should be an MS Word attachment. Please keep your summary under 250 words and include the names of all participants in the body of the summary (the names are not included in your word limit). Also, try not to use exotic formatting, that Blackboard won't be able to handle.

Finally, please do not include the name of anyone who did not participate, even if they were assigned.

Regards,

Grandon

APPENDIX C: EXCERPTS FROM INSTRUCTOR'S BLACKBOARD POSTING CONCLUDING THE DISCUSSION

[Instructor summary of the case, about 4 paragraphs, omitted]

With respect to the groups, I could abide with recommendations either for or against continuing the arrangement. The central thing I needed to see, however, was the clear recognition of the level of risk involved.

My ranking is as follows:

Rank #1: Group 1

In addition to recognizing my preference for recommendations that jumped out at you, the group clearly recognized the strategic realities of the case. They appeared to proceed from the assumption that it was too late to back out of the agreement, so the company's focus needed to be on mending it. I think this is avery reasonable position (although it would have been nice if they'd stated the assumption explicitly). Overall, as good as it gets on a Xerox closing.

Rank #2: Group 4

Also a nice job. Their "lessons learned" really captured the heart of the case. Their recommendations were okay, but suffered a bit by comparison. I just don't know how you'd implement them given the nature of the arrangement with EDS.

Rank #3: Group 3

The recommendations of this group were among the best. My main complaint was that their issues seemed to totally disregard long-term concerns and their lessons learned section looked as if it had been written by the author of the Xerox case. I'm sure it must have some meaning, but darned if I can figure out

what that meaning is. (And even if I could, I doubt it would be even remotely actionable.)

Rank #4: Group 5

My main problem with this group's summary is I wasn't sure whether or not they were recommending dissolving the current arrangement or not. The recommendations, on the one hand, seemed to suggest EDS in more of a consulting role (implying dissolution) yet they also seemed to suggest the agreement would continue to remain in place. That's a bit much hedging for my taste.

Rank #5: Group 2

This group focused on the problems leading to Xerox's decisions to outsource, rather on the risks of doing so. In doing so, I feel they stuck to close to the words of the case, rather than looking deeper at what those words actually meant. The recommendations were also pretty generic, such as "make sure the agreement is fair and equitable," "get buy in from the existing IT workers," "hire a consulting group" and "give the head of IT the power to implement these changes." Moreover, they suggested the company learn from its past outsourcing arrangements. Holy mackerel—you mean they've outsourced their entire IT function before???