CASE STUDIES, TECHNOLOGY AND PEDAGOGY: DELIVERING CASES THROUGH MULTIPLE PLATFORMS

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ABSTRACT

The Case method is a powerful student-centered teaching tool that brings real-life situations into the classroom. This paper describes variations and insights that emerge from the experiences in teaching cases using diverse online and in-class available technologies. Cases can impart pedagogic outcomes such as critical thinking, communication, and interpersonal skills in addition to depth and multidisciplinary breadth of content. The case method serves to bridge the gap between theory and practice, and impart pedagogic outcomes such as critical thinking, communication, and interpersonal skills in addition to depth and multidisciplinary breadth of content.

Given the ubiquitous nature of technology supporting pedagogy, this article highlights how technology may be applied to the case study method. Different teaching approaches (hybrid and fully online approach) facilitated by technology supports a range of learning environments with additional advantages from group interaction and synchronous presentation tools. It is also relevant that the use of modern technology will give tomorrow's leaders the advantage of having learned in the same environment in which they will work.

CASE METHOD: AN OVERVIEW

Reading and discussing cases form an important pedagogic tool. Working through complex, ambiguous, real world problems engages students with the course material, encouraging them to see it within its specific context "from an action perspective, rather than analyze it from a distance" (Angelo & Boehrer). The approach has been significantly advanced by the Harvard Business School. Barnes et al. (1994) defines the case method:

> "A case is a partial, historical, clinical study of a situation which has confronted a practicing administrator or managerial group. Presented in narrative form to encourage student involvement, it provides data -- substantive and process -- essential to an analysis of a specific situation, for the framing of alternative action programs, and for their implementation recognizing the complexity and ambiguity of the practical world."

Barnes et al. (1994) point out that when successful, the case method of instruction produces a manager grounded in theory and abstract knowledge and, more important, able to apply those elements. Cases introduce different aspects of the firm, such as a mission and vision, important stakeholders of the firm and their involvement in the firm, problems faced by the firm and alternative action programs available to the firm. Cases also introduce possible risk implications and other outcomes, and highlight the complexity of the practical world.

TECHNOLOGY-ENHANCED APPROACHES TO THE CASE METHOD

While cases developed as an in-class pedagogic tool since its inception, the question arises about whether the tool may be successfully adapted to the new technology environment. Specifically, tools such as ECHO 360 (http://echo360.com/), Blackboard and the Blackboard Collaborate toolkit (http://www.blackboard.com/) and Wimba Classroom (originally used within Blackboard, but is now Blackboard Collaborate) have transformed the communication of knowledge and the concept of the classroom. Briefly, the Echo360 Platform is an active learning system with video and audio recording for capturing lectures, remote learning, improved content

management and student engagement. The core feature is however, the classroom lecture capture feature. Wimba Classroom (now Blackboard Collaborate) is a platform that includes audio, video, chat, whiteboard and application sharing tools to create a virtual classroom environment. Wimba Classroom was an add-on feature in Blackboard Vista version and is now fully integrated within the Blackboard Learn version as Blackboard Collaborate.

These technologies allow for two means to interaction, namely, synchronous and asynchronous. The synchronous interaction closely replicates face-to-face meetings, but with participants in different physical locations and occurs between participants at the same time from remote locations using "live" chat tools (e.g., Wimba Live Classroom). The case discussion usually has a clearly defined time frame or class period, as does a case discussion in a classroom-based course. In contrast, asynchronous interactions occur between participants at different times and can use such tools as discussion boards, email, and assignment tools. Importantly, the technology also allows within-group interaction that facilitates replication of a close classroom group activity. This group activity also allows the application of case method which is popularly based on group interactions.

IMPLEMENTATION

We experimented with applying the technologies to cases over several semesters. These resulted in different approaches which are consolidated broadly into two broad approaches, the hybrid and the online (indicated in figures 1 and 2). The first approach, the hybrid, used two teaching technologies, namely Blackboard and ECHO 360, to teach cases in the classroom, with technology serving to enhance the student experience. The second focused on online teaching, facilitated by Blackboard and supporting technologies. The basic sequence in both approaches suggests similar frameworks, except differences in the application of technology, and the consequent differences in emphasis on student skills development. For example, the optional activities to integrate online communications segment (as in Hybrid A and online) emphasized teamwork skills, and the online critique segment (Hybrid B using ECHO 360) emphasized oral communication skills, i.e., groups would provide feedback on the presenting group work on communication of the case.

The approaches (as suggested in the figures) consist of two main components:

1. Planning: The first step is preparing the case assignment, integrating the course objectives, and assigning the cases to the respective groups.

2. Group Case Assignments and Implementation: There are a variety of methods of case analysis and presentation. The approaches in this paper consider the optimal use of technology in case analysis and presentation, and increased role of groups in enabling different perspectives to increase the depth of analysis. For example, the asynchronous interaction facilitates group preparations and case submission using Blackboard (Hybrid A and Online). This allows for setting up separate online forums for teams, with topical threads and case being used in both approaches.

Given the application of different technologies and methods of instruction (in-class versus online) the different possibilities may be distinguished as below:

Hybrid (in-class and online) Approach: The Hybrid approach integrates the traditional classroom case approach with advantages of direct interaction, while facilitating use of technology in coordinating teamwork. The detailed hybrid approach may take two forms as in *Figure 1*: Hybrid A involves the use of Blackboard, and includes extensive use of asynchronous online group work. This option emphasizes online group discussion, and can be useful for assessment and for developing online communication and teamwork skills. The synchronous interaction is during the in-class presentations. Hybrid B begins with the traditional group discussion (face-to-face), but uses the ECHO 360 tools in class to record the case presentations and have groups critique them to emphasize communication skills.

Online-only Approach: This is the traditional online class, where case discussions and presentations are conducted using online synchronous and asynchronous technologies. This approach emphasizes the online group interaction technology (Blackboard & Blackboard Collaborate) in facilitating group work (as indicated in *Figure 2*).

As suggested in the figures, to allow greater depth of analysis, and increase variety in the approach to analysis, groups may be assigned differing roles, such as initiating the case, critiquing the work of the initiating group or presenting the case in the *synchronous* classroom (online or face-to-face). The case presentation would follow a cycle that begins with preparation and discussions at the group level, followed by postings that allow for critiques, and finally the presentation at the chats.[1] Case difficulty levels are factored into the presentation and assessment outcomes. The specific role of groups would be as follows:

- The "Initiating" group members will discuss the case within their "group discussion forum", and then post their group response to questions in the forum provided (Hybrid A and Online) or present in class (Hybrid B). They would focus on the content of the case.
- The "Critiquing" group members will receive the "Initiating" group postings in the online forum (or review the presentation either in class or through the Echo360 recording), and critique the case analysis. Specifically, they need to consider the content, consolidating ideas from the content of the case, highlighting strengths and areas for improvement, with reference to the case analysis and supporting references.
- Finally, the "Consolidating/Presenting" group will consolidate the material from the initiating and critiquing groups, and present a consolidated version during the online session (or in the classroom). The presenting group must also be well acquainted with the case materials as well as other supplements to make a strong presentation that integrates their views with that of the other groups. This will allow for discussions and further clarifications.

The above roles were similar for both the Hybrid A and Online-only approaches; the main difference between the Hybrid A and Online-only options was the presentation – face-to-face in the classroom for the former, and in Blackboard Collaborate/Wimba for the latter. For Hybrid B, the presenting group also initiated the case, and the critiquing group critiqued not only

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[1] While a variety of other options may be used (e.g., having only two types of groups, initiating or analyzing and presenting), this option is particularly useful in organizing large classes, and has the advantage of increasing the depth of case analysis, while supporting diversity in participation levels for different cases analyzed.

the content but also the presentation (which was recorded using ECHO 360, uploaded and made available for all to view).

STUDENT LEARNING

The case method offers opportunities for students to get a closer view and understanding of firms (particularly live cases of firms with online websites and online information), while also developing critical thinking and analytical skills. The application of technology does not detract from student development of these skills. Rather, it provides opportunities to increase the skillsets associated with working in this technological environment. For example, the two approaches (Hybrid A and Online-only) enhance teamwork and technological skills using Blackboard. Faculty can also assess individual participation in online group activity, given the written trail, and therefore, provides greater motivation for student participation. These approaches also support written and oral communication. The online presentations increase teamwork and coordination, and presentation skills (the **Appendix** provides a rubric for assessing communication skills). The online method also increases opportunities for research into topics and the firm, particularly given the increased use of online sources. Thus, research readings and online websites may be included in the assignments to increase depth of coverage. The Hybrid B method could include critiquing of communication skills, and assessing individual perception of the outcome of the presentation that helps increase self-awareness, leading to more conscious efforts to improve communication. For example, student feedback in the Hybrid B approach, have indicated a greater awareness of their own communication skills that enabled them to develop plans to improve those skills.

While we emphasize the strengths of the approaches highlighted above, it is also important to be cognizant of their limitations, and optimize the use of technology to focus on the strengths. For example, the online presentations do increase dependency on technology, and cannot avail of the advantages of in-class communication, both verbal and non-verbal enhanced in large part by the face-to-face atmosphere. This limitation, however, may be offset by increased focus on other skillsets, particularly flexibility in group communication, research and technology usage skills. Thus, while the hybrid approach incorporates many advantages of the traditional case analysis, technology provides added advantages and opportunities.

SUMMARY AND CONCLUSION

Cases are crucial teaching tools, particularly in business fields, as it brings the real-life complexity into the classroom. The advances in technology have not reduced the applicability of the case approach; rather it has enhanced the opportunity to use them from different perspectives and emphasize different learning objectives. For example, as illustrated above, online technology facilitates increased online group work and access to online resources. In sum, irrespective of the approach used, the ability to harness the value of the case method with the continued innovations in technology increases the potential for student learning experience. Specifically, this exposure will provide tomorrow's leaders the advantage of learning in the same environment in which they will work.

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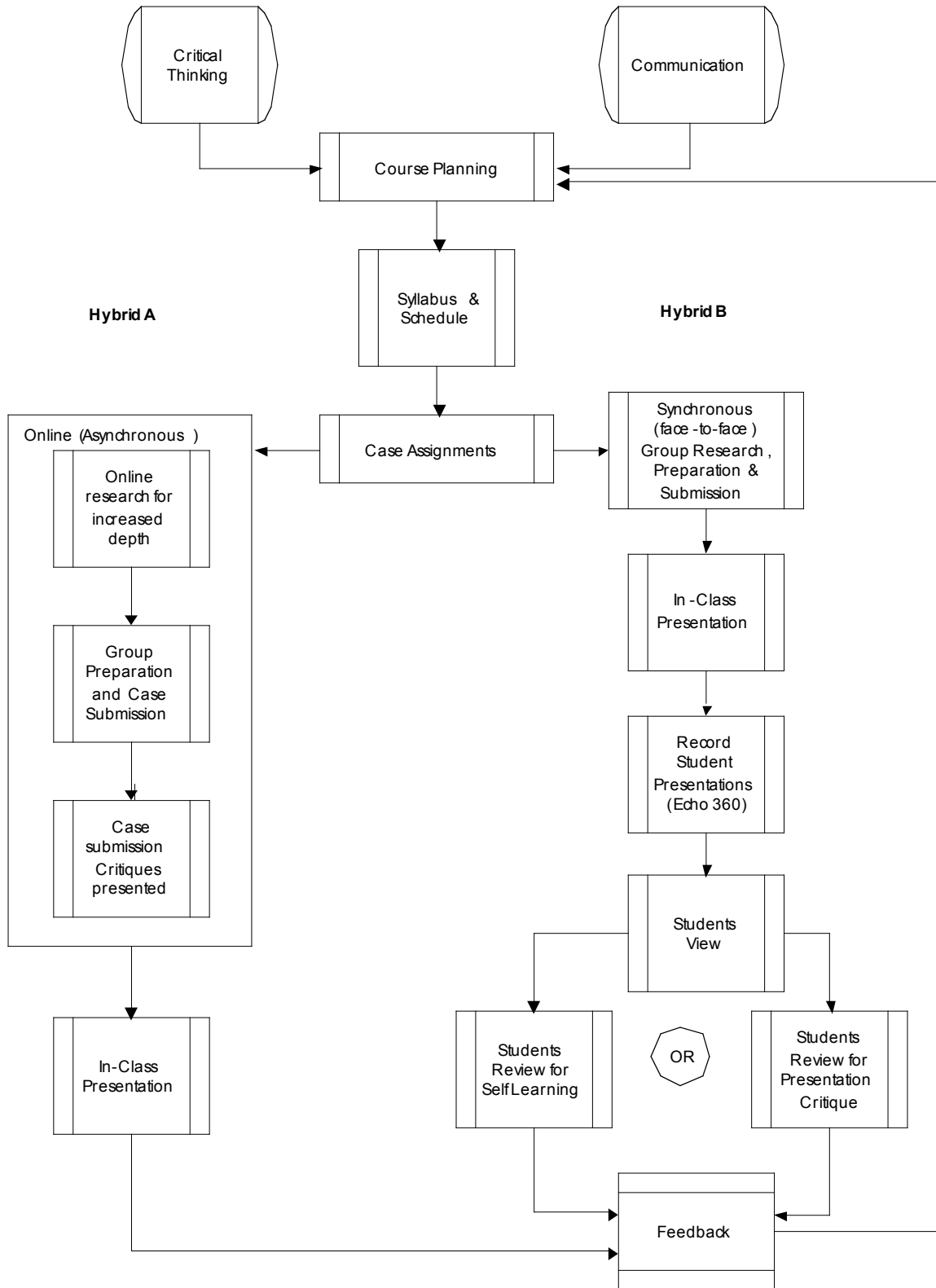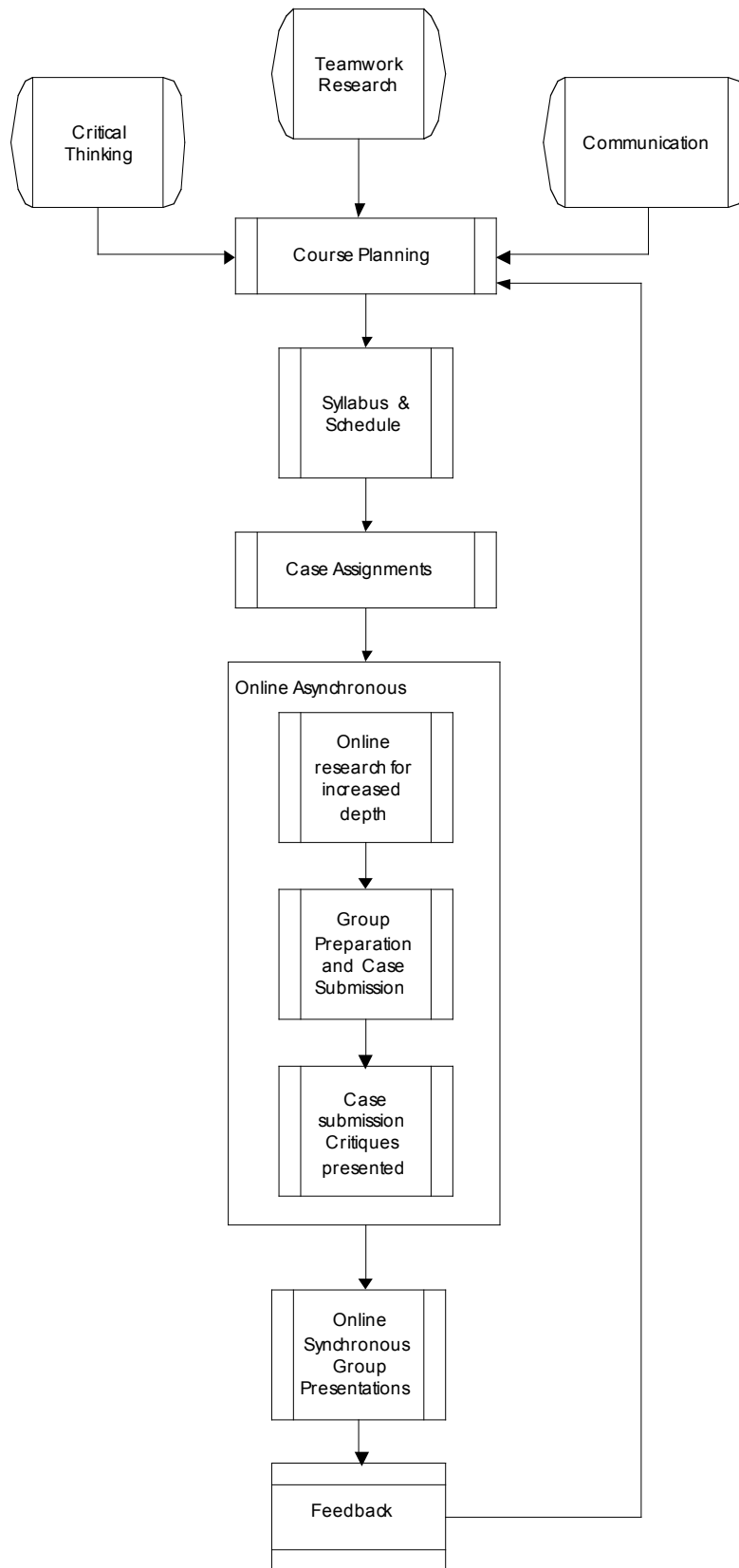

Websites:

ECHO 360: http://echo360.com/

Blackboard and the Blackboard Collaborate toolkit: http://www.blackboard.com/

WIMBA Classroom: http://www.wimba.com/solutions/higher-education/wimba_classroom_for_higher_education

Figure 1: The HYBRID Approach

Figure 2: The ONLINE Approach

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Appendix: Presentation Grading Rubric

Criteria	Level 1	Level 2	Level 3	Level 4
Content				
Overall Completeness & Credibility	Not organized, with no sequence of information	Information not consistently presented in logical manner; some information and supporting material missing or incomplete	Information presented logically in sequence; some information or supporting material missing or incomplete	Has strong introduction, is clear, with effective transitions between sections, leads to clear conclusion; indicates sufficiency of information and supporting material; sense of closure provided at end.
Individual Contribution	Student does not have grasp of information; unable to answer any questions.	Student able to address rudimentary concepts only related to individual part.	Student able to address concepts with ease related to individual part, and answer questions.	Student able to answer questions elaborately and with ease of the paper as a whole and the individual parts, displaying an overall understanding of the topic.
Communication				
Visual aids	Visual aids insufficient, poorly prepared, does not clarify points.	Visual aids not proofread; overuse of graphics or text; does not clarify many points	Visual aids prepared well; need to more effectively clarify points.	Visual aids carefully prepared; used appropriately, and effectively to clarify points
Articulation	Casual language; unfamiliar terms unexplained.	Language mostly appropriate to audience (some casual words); technical/ unfamiliar terms unexplained	Language mostly appropriate to audience (more professional terminology);	Language appropriate to audience; Technical/ unfamiliar aspects explained