Managing Team Projects in Online Courses

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This paper provides the results of a survey research project regarding managerial issues associated with collaborative team projects in online courses. In the context of this paper, a team project is defined as a class assignment to subgroups of students in an online course that requires collaboration among team members and for which each team submits a single integrated response to the instructor for review, grading, and feedback.

The lead researcher had prepared a primer on Developing and Conducting Online Courses for faculty at the graduate school where he teaches (http://www.ndu.edu/irmc/elearning/primer/). None of the guidance provided in the primer had been empirically validated. The project discussed in this paper begins comparing the guidance offered in the primer with perceptions of other faculty members and students. The first section studied was Managing Team Projects. This topic was chosen because of its importance in graduate-level online education, the lack of experience by faculty in managing subgroups of online students, the difficulty of acting in the role of a restrained coach in an online environment, and the paucity of relevant research information. Most of the limited research in the literature dealing with small group processes merely reinforces the importance of a collaborative teaching strategy and affirms its difficulty or provides guidance to the team members. Few specific insights are provided that can help guide a new online faculty member in carrying out this challenging assignment.

The Study

An 11-item survey asking opinions on the team management practices in online courses was used. Open-ended comments were elicited for each item to help explain choices. The survey was distributed to about 400 students who have taken online courses from the researchers within the last few years at two institutions - National Defense University (NDU) and University of Maryland University College (UMUC) - plus about 30 faculty members from each institution. For both students and faculty, the response rate was approximately 50 percent. A demographic question at the end of the survey allows the results to be cross-tabulated by role (faculty versus student) and institution (NDU versus UMUC) to detect any differences in response distribution. The survey form was available online at a publicly accessible website and the e-mail message requesting participation provided a link to the form.

Findings

The selections by the respondents tended to support most but not all the DL Primer guidelines.

What Kinds of Assignments Lend Themselves to Team Projects?

The respondents agreed the assignments recommended in the primer are the most appropriate for team assignments in online courses: Mini-case Studies (82.5%), Project Applications (65.3%), Research Projects (60.2%), and Essay Questions (42.6%). The two other alternatives provided on the survey received little support as expected: Tell-us-a-Story (18.7%) and Multiple-choice Tests (7.6%). There were no systematic differences between respondents from NDU and UMUC in their choices, but students and faculty prioritized their choices somewhat differently. Students preferred Mini-case Studies (84.3%)...
well above Research Projects (57.9%), while faculty preferred Research Projects (74.3%) slightly more than Mini-case Studies (71.4%). The faculty favorite was Project Applications (77.1%).

Respondents were asked how the scope of team assignments should compare in size (depth and breadth) to exercises assigned to individual students. About half the respondents thought team projects should be larger in scope (52.8%) with the rest split between believing team projects should be smaller in scope (28.8%) and both team and individual assignments having about the same scope (20.8%). The primer recommended that team projects have greater breadth or depth because the work can be divided among team members. It is interesting to note that many more faculty members were comfortable with team projects being larger in scope (74.3%) than students (49.8%). Comments from students point to the extra time and hardship team projects impose on them in coordinating the work so that, in fairness, the scope of team projects should not exceed that of individual assignments and might even be smaller.

Another question concerning the nature of the team assignment asked if it was preferable that all teams have an identical assignment or that different teams address different parts of a larger assignment. About half the respondents felt that neither was preferable (either one can be used appropriately), about a quarter favored individual projects, and the remaining quarter preferred different assignments to teams. The results supported the guidance in the primer that points to benefits of both approaches – using identical assignments to show the variety of approaches that might be taken in response to a given situation, and using different assignments to show how discrete parts of a large project fit together.

**How Large Should a Team Be?**

The choices for team size were “2-3,” “4-5,” “6-10,” “11-15,” and “16-20.” It was expected that the “4-5” and “6-10” options would be selected most frequently; however, the respondents overwhelmingly selected the “4-5” team size option (75.6%) with most of the remaining respondents choosing the “2-3” option (19.2%). Team sizes greater than five were rejected because of the strain they place on the team leader to coordinate team activities and integrate the input from so many students. Comments suggested that team sizes of 4-6 were probably optimal because they allowed for one or two non-participating members without placing an undue burden on those who participate. It was also suggested that 4-6 team members was a manageable number even if everyone did participate. NDU respondents tended to favor small team sizes of 2-3 more than the UMUC respondents (29.4% to 12.2%). It is possible that the NDU student body (typically federal managers in their 40’s and 50’s) might allow for smaller team sizes because of their maturity, sense of responsibility, and willingness to accept a leadership role.

**Should Team Membership Be Consistent Throughout the Course?**

This item addressed whether it “is preferable that team membership be consistent throughout the course or should it change as the course progresses?” Two-thirds of the respondents preferred team membership be kept intact as the course progresses. The primer left the choice up to the instructor, but less than 20 percent of the respondents agreed with this approach. Comments supporting the cohort group strategy pointed to the opportunity it presents for the group to develop into teams over time during subsequent projects. Only a small percentage of respondents (15.1%) preferred to mix up group membership for each team assignment, citing their desire to work with a greater variety of students in the class and their concern that they might get stuck in a dysfunctional team. More faculty (80.0%) than students (65.7%) favored keeping groups intact, perhaps because it is an easier strategy to administer. More UMUC respondents (77.7%) than NDU respondents (50.5%) favored intact groups. This might be explained by the greater diversity of UMUC students, which increases the difficulty of forming into functional teams.
What Should Be the Responsibilities of the Team Leader?

Respondents generally favored the seven team leader practices promoted in the primer. The other two potential practices included in the survey had less than 50 percent agreement among respondents - assessing and giving feedback to team members on the quality of their contributions (33.9%) and letting the instructor know who participated substantively and who didn’t (44.6%). Students had an even lower proportion of agreement on these two items than did faculty. This item generated the greatest number of comments, some of them emotional in tone, in the survey. They indicated that it ought not to be the responsibility of one student to judge the quality of work by other students nor to inform the instructor who participated and who didn’t. They used terms like ratting out and babysitting. Besides, many of them mentioned that the instructor is in a position to monitor the group activity and see who has and who hasn’t contributed, and to provide feedback on the quality of the contribution.

How Should the Team Leader Be Chosen?

The respondents were given the opportunity to choose any or all of seven possible approaches for selecting team leaders. None of the choices was selected by a majority of respondents. The three options that were recommended in the primer received a moderate amount of support. These included if no one volunteers, then… choose someone at random (41.4%) or …choose someone using whatever criteria the instructor wishes (31.5%) and allow students to beg off being team leader for a given lesson, but then require them to volunteer to be team leader for a later lesson (38.2%). The option selected the most was require the team to name their own team leader for each team assignment (49.4%). This was not suggested in the primer. Its high level of support came primarily from UMUC respondents (68.2%), where this approach seems part of the online class culture there. In contrast, only 23.3 percent of NDU respondents agreed with this option. The comments by NDU respondents indicated that everyone is capable of leading and appointment by the instructor assures the responsibility is rotated. Perhaps the greater emphasis on grading of team projects at UMUC compared to NDU supports the criticality of the team leader decision at that institution.

What Should the Instructor Do if the Team Leader Fails to Take Action?

The specific question asked was “what actions should the instructor take if a team leader fails to post the assignment to the team in a timely manner and doesn't respond to e-mail inquiries from the instructor?” Three choices were offered for which the respondent could select all that applied - elicit a volunteer replacement team leader from the team (65.7%), name a team member to take over the assignment (43.4%), and allow the team to treat the assignment as an individual assignment with each person posting their own response (37.1%). The first option was recommended in the primer with the third option characterized as a “worst-case scenario.” The idea of eliciting a replacement team leader was preferred by the majority of respondents. This finding supports the notion that the management of teams is delegated to the teams at UMUC more so than at NDU where the team management tends to be viewed as a shared responsibility between the team and the faculty member. Respondents from the two institutions differed substantially in their responses to the idea of converting the assignment to an individual one in the absence of a functioning team leader. Over half of the NDU respondents (51.5%) were amenable to this option but only 27% of UMUC respondents would find it acceptable. The more stringent grading of team projects at UMUC than at NDU might explain the difference in responses.

Should Team Members Be Allowed to Opt out of a Team Assignment?

The results from this item differed in the greatest degree from the guidance in the primer. That guidance suggests that “Since flexibility and convenience are the hallmarks of online instruction, it would be appropriate that students be given the option to…” opt out with notification but not permission whenever
they wish and complete the assignment on their own. Few respondents (4.0%) agreed with this option in the survey. The vast majority of respondents (79.2%) believed that students would have to offer sufficient justification and gain permission in advance to opt out of a team assignment. The rest (14.4%) took a more conservative position – under no conditions should a student be permitted to opt out. More faculty (31.4%) than students (11.6%) took this conservative position, while more students (80.9%) than faculty (68.6%) would allow opting out with prior permission. Although few in number, the respondents who believed students should have more discretion on this matter were quite vocal in their comments. They tended to indicate that students in their occupations are sometimes called away unexpectedly and may not be able to participate in team deliberations. The more conservative position was also supported by comments indicating that students who opt out make more work for the remaining team members and that a policy permitting unrestricted opting out would lead to wholesale withdrawal from team projects.

Under What Conditions Should the Instructor Intercede in the Team Deliberations?

The four options with the highest amount of agreement by the respondents were the ones strongly supported in the primer, namely: the team leader does not post the assignment to the team members in a timely manner (59.0%), someone asks a question directed at the instructor (65.3.0%), time is getting short and the team is struggling with the assignment and doesn't seem to have any idea what to do (61.8.0%), and a heated argument breaks out among members of the team and the team leader is either unable to deal with the issue or is a participant in the dispute (66.9.0%). There was agreement with the other actions as well but to a lesser degree: someone asks a specific question that the instructor believes cannot be answered by any member of the team (52.2%), right off the bat, the team has embarked on a path that's likely to be unfulfilling (41.0%), and one or more team members aren't contributing to the team deliberations (42.6%). Fewer faculty than students agreed with the reasons for interceding across all options. It seems that faculty may have a general aversion to inserting themselves into team deliberations under conditions for which students might desire external action.

How Can the Instructor Grade Student Contribution to Team Projects?

The respondents were given a choice of one of six options; including one option for not grading team assignments at all (this option drew agreement by only about 7% of the respondents). The options for grading varied on two dimensions – (1) should the grade be pass-fail or a scaled letter/numerical score, and (2) should the grade be assigned by the instructor, the team members, or a weighted combination of the two? The primer leaves the choice of grading option to the instructor. The two options that received the greatest amount of support were a pass-fail grade assigned by the instructor (30.0% overall with the heaviest support from NDU respondents – 48.5% agreement as compared to only 16.9% agreement by UMUC respondents) and a scaled letter/numerical grade assigned by a weighted combination of the instructor and the team members (28.3% overall with the heaviest support from UMUC respondents – 38.8.5% agreement as compared to only 13.9% agreement by NDU respondents). There were comments supporting each position but many of them suggested an option not included in the given options – grading the entire team on the basis of the team submission.

Conclusions

As already mentioned, the selections by the respondents tended to support most but not all the guidelines provided in the DL Primer. Respondent preferences differed dramatically with three areas of guidance. First, the respondents favored team sizes in the range of 4-5 (75.6%) where the guidance in the primer included team sizes of 6-10 members as well (5.2%). Second, the primer suggested that team membership may be kept intact or mixed up at the instructor’s discretion (19.1%) but respondents felt that team membership should be kept intact throughout course (65.7%). Third, the primer said that students should be able to opt out of a team assignment whenever they wish (4.0%), but respondents thought that students
should be able to opt out of a team assignment only with advance permission and with justification (79.2%).

The differences in perceptions between students and faculty and between respondents from two different institutions as well as intense comments by the vocal minority suggest that these eleven team management practices ought not to be analyzed independently of each other. There might very well be combinations of management practices and course conditions for which a ten member team is highly appropriate or when team members should be permitted to opt out of a team assignment whenever they wish. At the very least, the results of the study should be shared with interested faculty of the two participating colleges separately to assess the preferences cited by respondents in light of the culture and conditions existing at their respective institutions. Any conclusions resulting from those faculty discussions should be used to modify or elaborate on documented practices and guidance existing at the college such as the referenced DL Primer. In addition, the survey results have suggested two avenues of more in-depth research; namely: (1) Identifying combinations of online team management practices that fit naturally together in a mutually supportive profile and (2) Relating individual specified combinations of online team management practices to the quality of the teams’ final submissions.

Biographical Sketches

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