

Teaching Tip

Adding Realism to the Formation, Management and Evaluation of Project Teams

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ABSTRACT

It is critical that MIS professionals are able to work in teams. Forming effective teams for group projects can be very problematic. When students form their own teams they tend to choose friends and the teams lack diversity. The faculty member may not know the students' availability and interests well enough to effectively form the teams. By having students go through an application and hiring process to form project teams and by having a structured evaluation and firing process, students gain some insight into the employment process and the teams that are formed are more diverse and perform better with fewer complaints.

Keywords: student projects, team formation, group work, systems analysis and design project

1. INTRODUCTION

The ability to effectively work in teams is critical for MIS professionals. Requiring students to complete academic work in teams in the upper level MIS courses develops this skill. In my systems analysis and design course students work on a group project that accounts for 45% of their grade. The formation and management of these teams has always been problematic for me. Allowing students to form their own project groups frequently resulted in homogenous groups (all the accounting students, all the international students, etc.). This homogeneity was frequently a stumbling block in completing the systems analysis and design course work because there was not a diversity of backgrounds, perspectives and skills. To combat this problem, I used to attempt to create the project teams. I would begin by distributing a questionnaire that contained basic background information, including major and courses completed as well as some questions on availability for meeting with group members. From this information, I would try to create groups that were diverse but that were feasible, in that the team members had times when they could meet. The students were frequently dissatisfied with the groups that were formed. This became a scapegoat because any group problems could be "blamed" on the professor since she had formed the groups

and "stuck" them with an under performing group member. After several semesters of less than ideal groups, it occurred to me that the formation of project teams could be a learning experience.

The formation and management of the project teams has become much more structured and realistic. For two semesters I have had the students hire, evaluate and, in some cases, fire their group members. The experience has been very positive for the students and myself.

2. SUBMITTING "APPLICATIONS"

At the very beginning of the semester each student is asked to submit an application for the group project. The application includes closed ended questions, such as class year and courses completed and open ended questions, such as what type of project the individual would like to work on or a description of relevant job experience the student may have. I have the students use numbers, rather than names on their applications in an attempt to remove the "forming groups with friends" problem and to eliminate any potential embarrassment when teams are formed. The completed applications are due at the beginning of the third class and are made available as a

.PDF file. An example of a group project application is contained in Appendix A.

3. THE HIRING PROCESS

All of the students are asked to rank the other class members in the order they would "hire" them from highest to lowest and then write a short essay on what criteria they used to make this assessment. Group leaders either volunteer or are selected to actually form the groups. Each leader chooses a group member in a round robin format. For example, if you wanted to form four groups, four leaders would be selected. Leader 1 would make a selection, followed by leader 2 and leader 3. Leader 4, because s/he is going last, would select two people. Selection would then reverse with leader 3 making a selection followed by 2 and 1. The process continues until all of the students are on a team. To speed up the hiring process, I display the identification numbers and erase or black the numbers out as individuals are chosen. This way we can quickly see how many people are left and who has not yet been hired.

4. THE FIRING PROCESS

Since I was trying to emulate a more realistic work environment, I felt it was critical to have a structured process to deal with under performing group members. The firing process is on the syllabus and is briefly discussed in class. Student can be fired from a group for missing 4 classes, missing a scheduled group meeting or not completing their work. A fired student must complete the project individually from that point on.

5. THE EVALUATION PROCESS

After the group project has submitted their project, the students evaluate their group members' participation in the project on a scale from 0-100 and indicate whether they would "hire" them again. These scores are averaged and account for 5% of each student's grade.

6. LESSONS LEARNED

I've used this method of forming group in my undergraduate systems analysis and design course for two semesters and although it does require some class time to form the groups, I have found it to be very successful. The group project seems to be taken more seriously because the groups are formed and managed in a more coherent and realistic manner. Student complaints about group members have dramatically declined and only one student had to be fired from a project team.

In the future I will be making one change to the evaluation process. The student evaluations of one another have been very high, in my opinion too high. Some groups did average work (an 85, for example) but had group evaluations that were very high (a 98, for example). From now on the average group evaluation will be multiplied by the project grade to determine the 5% project evaluation grade. For example, the student with a 98 on the group evaluation and with an 85 on the project will earn an 83 (98% of the 85).

7. STUDENT BENEFITS, BEYOND THE GROUP PROJECT

The students seem genuinely shocked by the criteria that other students use when determining who they will hire. We've had some rousing discussion on the importance of a high GPA versus relevant work experience. Things like clarity, timeliness (late applications are accepted but are posted as such) and completeness of the application have been used as factors in making the hiring decision. For many students this is the first time they've considered how they'll look on paper to an employer. I believe they have found it to be an illuminating experience.

AUTHOR BIOGRAPHY

Dr. Donna Weaver McCloskey is an Assistant Professor at Widener University in Chester, Pennsylvania. She holds a B.S. in Finance and Management Information Systems (MIS) from the University of Delaware, an M.B.A. from Widener University and a Ph.D. in MIS from Drexel University. Recently, her research has focused on telecommuting, technology acceptance and data warehousing. Her teaching responsibilities are in the areas of systems analysis and design, database management, data warehousing and decision support.



**APPENDIX 1
GROUP PROJECT APPLICATION**

APPLICANT NUMBER (choose a 4 digit number --- please remember it): _____

CLASS YEAR: 21 22 31 32 41 42+

GPA: high 3's mid 3's low 3's high 2's mid 2's low 2's not reported

I AM GOING TO WORK TO EARN THE FOLLOWING IN THIS CLASS:

A A- B+ B B- C+ C C- D

MAJOR: Accounting CIS Economics MIS Other _____

PRIOR COURSE WORK (circle those classes you have successfully completed):

CSCI 151/152 – Intro to Computer Science CSCI 247/248 – Data Structures I and II

FIN 303 – Financial Management MIS 358 – Database Management

MIS 363 – Object Oriented Programming MIS 461 – Telecommunications

MIS 425 – Special Topics – SAP PRWR 215 – Effective Communication

SPECIAL SKILLS/WORK EXPERIENCE:

AVAILABILITY (circle those times that you are generally available to meet and cross off those hours when you would rarely be able to meet):

Monday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Tuesday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Wednesday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Thursday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Friday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Saturday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)
Sunday	morning (8-11)	lunch (11-2)	afternoon (2-4)	evening (4-6)	night (6-9)

PERSONALITY TYPE (Complete the Myers Briggs personality assessment at www.keirsey.com and click on Take the Keirsey Sorter icon.) According to the questionnaire, your temperament is _____.

This is correct / incorrent because....

I HAVE THE FOLLOWING PROJECT PREFERENCE: