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Workshop: Resources for Teams – The Team Maker and CATME Systems (and Why They Work)

Take home message: As a user of CATME, faculty members join a community of users. The CATME system is community tested and effectively used with little training. To get started, request a faculty account at https://engineering.purdue.edu/CATME/index.htm

Summary: The CATME system provides a way to form diverse teams with compatible schedules for meeting outside class. Peer evaluation is linked to behavioral anchors an allow students to evaluate peers without social pressure. Faculty members can view detailed information for both team formation and peer evaluation. They can use this data to intervene appropriately to encourage students to honestly rate themselves and team mates. In the notetaker's opinion, the system is a valuable tool in promoting effective teams and peer evaluation, avoiding many common pitfalls.

Brainstorming: What problems occur in team formation?
* Homogeneous groups – self selected, does not model workforce diversity
* Distribution of ability – intense discussion only occurs if groups are diverse in ability
* Students don't want to team – or only want to team with friends
* When given a choice of forming their own teams, students exhibit confusion
* When given a choice, students are reluctant to self select because they do not want social pressure if they would prefer not to work with friends
* Drop outs from course reduce number of team members

Creating a survey in CATME

This step sets up a survey for students to provide information to form teams based on selected criteria. The categories can be weighted, but generally, schedule must be the most important factor. From the faculty perspective, the system provides straightforward wizards to lead through the process. Rosters can be uploaded from spreadsheet files and known data (such as GPA) can be preloaded. Multiple faculty members can be added in cases of team teaching. An automatic email feature reminds students to complete the survey. To maximize completion, it may be necessary to give students credit for completion. (Students do try to "game" the system, but this only works if they know how the criteria are weighted.) Students can make private comments to faculty members, who should respond if students are upset by survey.

From the student perspective, the interface is easy to use. If students have more than 80% busyness in schedule, faculty member must intervene to find out if they are trying to avoid team work or if students are that busy, counsel about the time needed to succeed in the course.

Team formation
After the teams are formed, they can be viewed by the faculty member. It may be necessary to adjust weighting of categories to get greater schedule compatibility in teams. Students can be grouped or ungrouped (for example, to keep two women together in a predominantly male engineering course). Entirely different teams can be formed for different assignments. The student view gives them the names and email addresses of team members, plus the schedule compatibility grid. Although the system could be used solely for scheduling purposes of pre-formed teams, Google calendar can be used for these purposes.

Brainstorming: What are the problems in peer evaluation?
- Need clear criteria
- Social norms effect evaluation (friends)
- Unequal workload
- Don't want to be honest
- Refuse to do rating
- Rate everyone the same
- Clique formation
- Confidentiality of information (but not anonymous, because faculty member can review). It is recommended that evaluations be done outside of class and students told to complete individually to minimize social pressure.

Response from facilitators
Faculty members have data to intervene for dishonest evaluations, for example detecting clique formation. They can request additional information from students to justify ratings.

If teams are pre-formed, roster can be uploaded to use the peer evaluation system.

Before students complete evaluation, some "training" helps them understand how the evaluation is set up. It is NOT the familiar Likert scale format and students may be confused about how to fill it out. It is behaviorally anchored, describing the performance of a high performer, good team member, and low performer, plus ratings between these anchors. Students should be encouraged to complete the self evaluation first, focus on behaviors, then names.

When the data are analyzed, certain issues are recognized (for example, self rating disagrees with ratings by others). Student feedback includes lists of ways to improve their team performance.