

## **GIFT Team selection using team leaders as hiring managers**

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Instructors who use team-based learning are familiar with its great advantages and its pitfalls. There is a significant difference in how college course teams function as opposed to those in industry. The method described here makes an attempt to simulate industry methods in the classroom. Since engineers in industry apply for jobs, team leaders were asked to apply for the role, and team members were selected by team leaders based on an abbreviated application.

The course that used this method was junior level Industrial Engineering Introduction to Systems Engineering, taught by one instructor for three consecutive fall semesters. The project was designed to require sub-teams with some specialization in different disciplines including electronics, mechatronics, programming, mathematical modelling, and project management. The course instructor served the role of “Engineering Manager,” to whom team leaders reported.

Students were incentivized to become team leaders because it would give them control over the team membership, work assignments, and schedule. Those interested were asked to complete a Team Leader Application in a Google form. It asked some Likert scale questions about the applicant’s experience in leadership, project management, and coordination. It also asked open ended questions about their team member selection methods, why they would make an effective team leader, and how they would keep everyone on track. The project description warned them not to select only their friends, as a diverse set of skills was needed to complete the project.

All class members were asked to complete a Team Member Google form that acted as an abbreviated application. It asked some Likert scale questions about the member’s experience in the various skills needed to complete the project, which sub-teams they would prefer to work on, and open ended questions about what would make them a valuable team member.

Based on the team leader applications the course instructor selected the team leaders, who were subsequently provided with a class roster on a Google sheet, on which they selected their team members. Team leaders had access to the responses of the team member forms so that they could select members based on desired skills. In order improve accountability, teams could “fire” a team member who was underperforming. Likewise, a team member could “quit” the team and go to work for a different one.

Response was generally good, and the process went smoothly in all of three courses. There were always enough team leaders to account for the number of teams in the course. In some cases teams found themselves short on certain skill sets required to complete the project effectively. However, this could be expected in an upper-level course in any discipline due to the relatively low diversity of experience in the cohort. Team leaders were never fired, and there were very few changes of team membership, which could be an indication of success in team selection and accountability. Teams generally functioned well, with high levels of success and less of the typical team conflict experienced using other team forming methods. The ownership of the team selection and individual accountability seemed to have a positive influence on team performance. Student feedback was positive in both informal settings and formal end of semester student evaluations of instruction.