Peer assessment in team working

Student assessment of contributions in Computer Science

UCL Computer Science (UCLCS) has developed their 100-Point Team Engagement Tool to provide a mechanism for both staff and students to efficiently evaluate their engagement in team-based project work.
One of the challenges faced with team working is when a team member fails to engage, or contribute enough time or intellectual effort. Alternatively, a team might have a dominant personality who takes over and attempts to control everything that other team members try to do. Even in a team that is functioning well, quiet students may struggle to be heard and end up doing supporting tasks rather than being actively involved in the main team activities.

The 100-point process is used to support continuous feedback for the full duration of a project. The process aims to:
- Help each student self-evaluate their contribution to the project
- Require the whole team to have a conversation about each other's' contributions
- Reassure students that they are making a useful contribution
- Highlighting students who need extra support or referral for pastoral support

Teams are working on projects running over 10 weeks or more, with each team being guided by a teaching assistant (TA) who meets them on at least a weekly basis. At each meeting a team has 100 points to be apportioned among themselves but they cannot give equal marks to each team member. Mostly teams come along prepared for this and the process is fairly quick. Rather than students arguing for more points, the longer debates around assigning points are more often when a student believes their score is too high, or one team member deserves more credit for a specific achievement during the last week.

The TA records the point allocation, and enters the data into an on-line system used to track student progress. Within this system each student is tagged as red, amber or green for each week, allowing their overall progress to be quickly evaluated. Green means that a student is participating well, amber that they need to look at how they can improve, with red indicating that they are having problems such as not attending or making an insufficient contribution.

The red/amber/green records can be viewed by TAs and staff, but a student can see only their own record. These records are not used as marking system, and there is no mapping from red/amber/green to marks or grades. Green, for example, means that good participation and a good team contribution is being made, but not necessarily that the results are strong. The TAs and staff will, of course, be giving feedback on the quality of the work during the weekly meetings and that is an important part of the process.

The 100-point is a very direct approach, and its purpose needs to be made clear to students, in particular that it is not being used to directly determine their marks. It is effective at surfacing potential issues promptly, allowing students to be offered additional guidance on their work without unnecessary delays or, if relevant, referred on to other student services. Many students have found the tool reassuring as they are able to take responsibility for adapting what and how they contribute to be in line with expectations. Equally, they enjoy receiving positive feedback from their peers.

This approach has enabled UCLCS to determine that the optimal team size is three, with the scope of the project work scoped accordingly. This minimizes uneven distribution of the work, enables each

student to have a similar level of participation, and makes is straightforward to determine under or over contribution to the work.

It is important that TAs are given proper training to operate the processes effectively. A TA may be managing 5-7 teams, and remains with the same teams for the duration of the project work. All TAs attend a workshop to introduce the tool and should complete the HEA associate fellowship scheme. To help manage large cohorts of students, UCLCS has a Senior TA system, where a Senior TA will oversee a group of TAs, and assist with the reporting process.

Initially setting up the tool, managing the logistics of team planning and assigning TAs is time consuming, but the benefits have been obvious. Students are gaining important life skills in self-reflection, providing feedback and ensuring that students are able to contribute effectively within team work. One of the most obvious benefits is identifying students' time management on long and often challenging projects. UCLCS purposefully do not make the process competitive and stress that it is intended to help students have a constructive conversation about team participation.

In summary Graham Roberts (role) says:
"The tool has really helped team leaders become aware of managing who is doing what and the need to delegate. I've also seen students who have problems come and ask for help when they realise they can't participate fully.

When a team works well the students get a buzz out of receiving the feedback from their teammates. Overall the introduction of the team Engagement Tool has provided a tangible and direct way of having structured conversations around the highs and lows of team working and is a powerful learning process."