

What do students think about various team interventions in our team-based, project-based first year course?

Take-home messages:

All the students like “high touch” interventions like peer mentors and team meetings with faculty. Hearteningly, every intervention is considered helpful to team functioning by more than half of the students.

What these interventions are...

What the students (n=60) say...

Peer Mentors

Excellent alum from the class are recruited to serve as mentor to a single team. Mentors attend labs, serve as a “coach” on both technical and communication efforts, provide additional “audience” and feedback for design reviews, and help first-year students develop a sense of belongingness in the CoE.

Progress Meetings

In one discussion + lab (3 hour block), students met in lab and were pulled out in teams for meetings with instructors (to discuss design progress as well as team functioning. Gantt chart and operating agreement were referenced in this meeting).

Survey Feedback

We downloaded the surveys (see below) as an enormous spreadsheet. Based on peer evaluations, students received one of three canned emails from instructors, with a bit of personalization in extreme situations.

Reflections

Students completed teamwork lessons with reflections, housed as “quizzes” on Canvas. They read about a team-related topic (e.g., communication in groups, task allocation) and wrote short answer responses re: how their team was coping with that issue.

Surveys

Four times per semester, students completed self- and peer-evaluations via Qualtrics (including CATME questions plus other metrics).

Icebreaker Puzzle

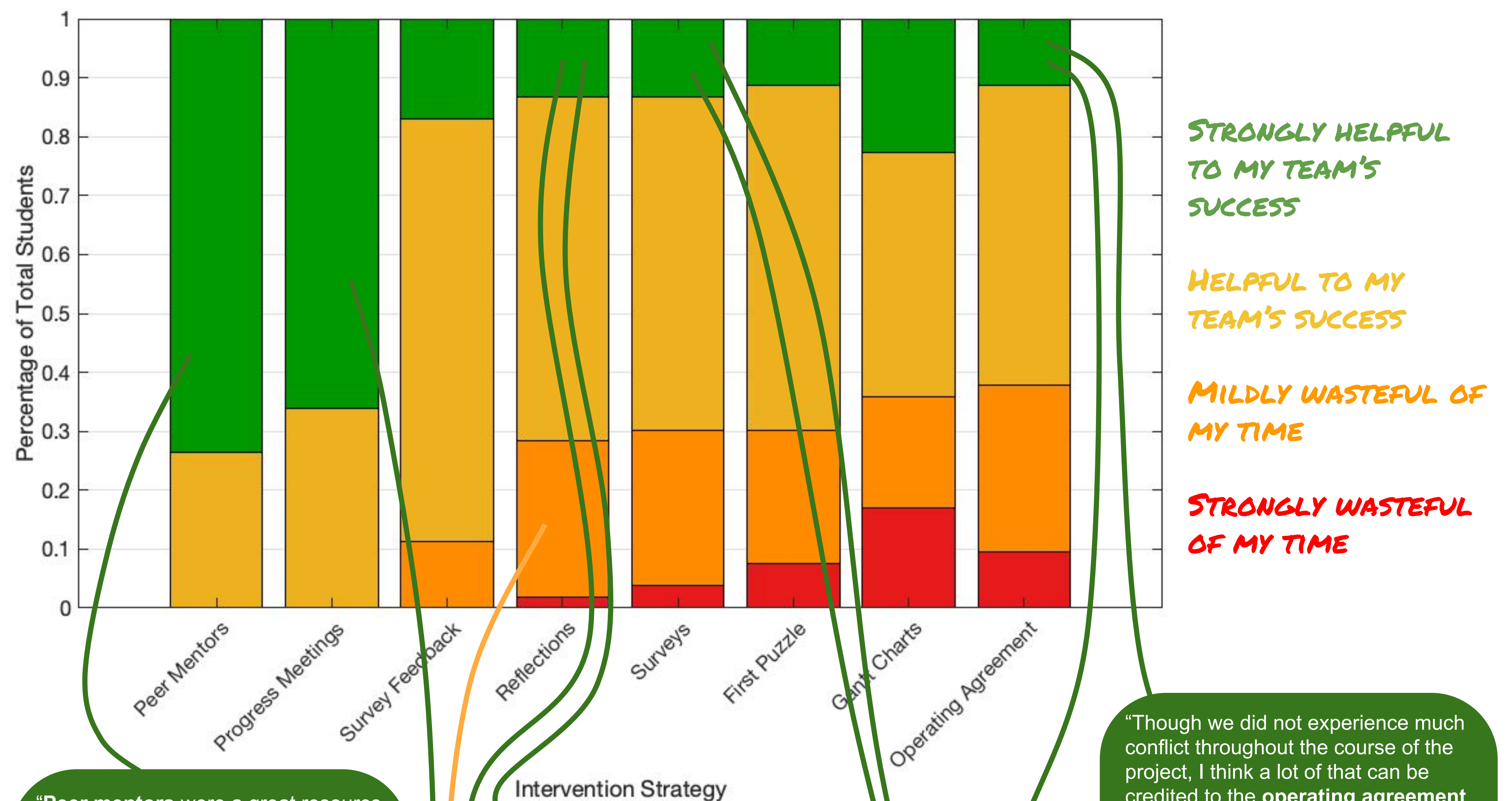
Student teams completed a logic puzzle as a getting-to-know you and communication activity.

Gantt Chart

Student teams created a shared project schedule in Gantt Chart form during a discussion section and returned to it in progress meetings and reports.

Operating Agreement

Teams work together through a **scaffolded Google Doc** to create a team contract. Mentors and faculty comment on student plans and can return to the agreement.



“Peer mentors were a great resource since they were present in lab so whenever we had any questions, we could ask them directly. In addition, they gave us advice/tips based on their own experiences so we wouldn’t make the same mistakes they did. Peer mentors also served as a good ‘in-between’ resource. If we had minor questions/clarification/confirmation issues, we could directly ask our peer mentors instead of asking our instructors who may not be able to respond as quickly due to their busy schedules.”

“Having **progress meetings** with the instructors was strongly helpful because these meetings helped lead us in the right direction with our projects. In these meetings, we would get instant feedback on what we were doing well and not so well and where we should continue to invest our time in certain parts of the project. Overall these meetings allowed us to know exactly what we should be doing moving forward and what we should prioritize.”

“I think that completing **surveys** were [sic] strongly useful for my team because I liked that there was way we could tell our instructors if our team was having issues without having to make a meeting outside of class.”

“The writing **reflections** I found to be useful because it was a time dedicated to really thinking about how our work had gone so far and what if anything would I want to change to make it better or easier to do something in the next week.”

“Writing **reflections** was very helpful for me personally, as the prompts allowed me to think about and identify how I could be a better teammate. I do not think I would have thought about my effectiveness as a teammate without these reflections.”

“The **reflections** were also slightly wasteful because I was already thinking what I wrote down. I generally just used the knowledge in my head to write down which was just not very constructive for my time I personally believe.”

“The ROV **surveys** are also very useful because there are issues in teams with some people not doing work, and the survey serves as a more indirect way of letting the teachers know that some people aren’t contributing. If I weren’t asked I wouldn’t tell the instructor.”

“Though we did not experience much conflict throughout the course of the project, I think a lot of that can be credited to the **operating agreement**, as writing one together at the start of the project helps us establish the team’s standards right off the bat. Had we not written the operating agreement, there may have been certain behaviors that members of the team engaged in that other members were not particularly happy with, and there would be no backbone reference to say that the behavior is not encouraged. Rather than having to deal with that and face conflict in regards to it, it was completely avoided because it was already clear from the start of the project the expectations that we were all setting for one another.”

“What I saw to be mildly useless at the time we were filling it out turned out to be very helpful and it set some guidelines on how certain work would be done.”

Want to add a team intervention to your class?

For the highest impact, go for the **face-to-face option** -- add **peer mentors** or add a meeting with the faculty.

Don’t feel like you have that much time? **Try a survey**, but don’t forget to close the loop on that survey. Make sure to **provide feedback**, even if it’s generalized feedback, ASAP after that survey closes!

MANY THANKS TO ALL THE STUDENTS WHO SHARED THEIR THOUGHTFUL COMMENTS!