

# Replacing traditional sections with Teams-based groupwork: remote learning and beyond

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## 1. Context

- A teaching intervention was implemented in an undergraduate introductory linguistics course that I have been teaching for six years.
- The course typically enrolls 250-350 students, and is taught in a lecture-discussion section format.
- Sections are capped at 25 students, and are mostly run by graduate student teaching assistants.

## 2. Before COVID-19

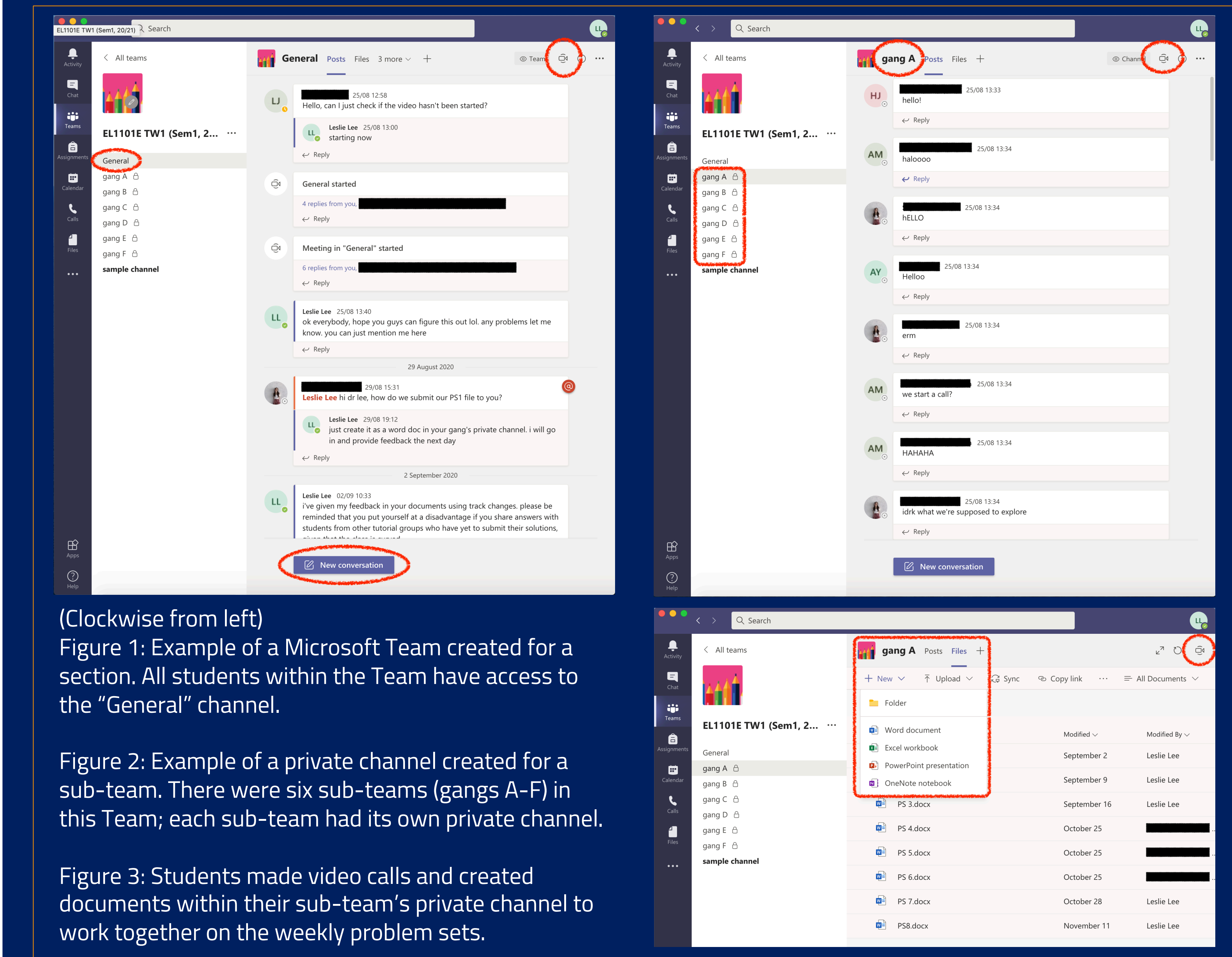
- Prior to the intervention, sections were conducted in person, once-a-week, and each section was 45-minutes long.
- Sections involved instructor/TA-led discussions of problem sets that students were expected to attempt prior to the session.
- Attendance was mandatory; students were graded on the basis of their level of in-class participation.
- This model provided a physical space that connected students with one another and with the instructor/TA.
- Even before the COVID-19 pandemic, there were inherent limitations to this model that were at odds with the goals of justice, equity, diversity and inclusion:
  - Issues with **assessing participation**
    - Students in Singapore can be quite introverted, so class participation tends to be rather imbalanced: a few outspoken students would dominate the discussions while many others would feel uninvited.
    - Classroom management was particularly a problem for inexperienced TAs.
  - Inability to provide good **feedback**
    - We were unable to provide detailed feedback that was tailored to students' individual weaknesses.
    - Introverted students tended to avoid seeking clarifications due to the group setting.

## 3. COVID-19 and shift to remote learning

- The university mandated a shift to remote learning, which introduced new issues:
  - Given the pre-existing difficulties with managing class participation, the problem would likely be compounded if we were to replicate the existing model in a synchronous online setting.
  - There was also a possibility that students, particularly freshmen, might become **disengaged from the learning environment** due to the lack of physical community resulting from remote learning.
    - The importance of learning communities in online learning has been recognized even before the COVID-19 pandemic.<sup>[1, 2]</sup>

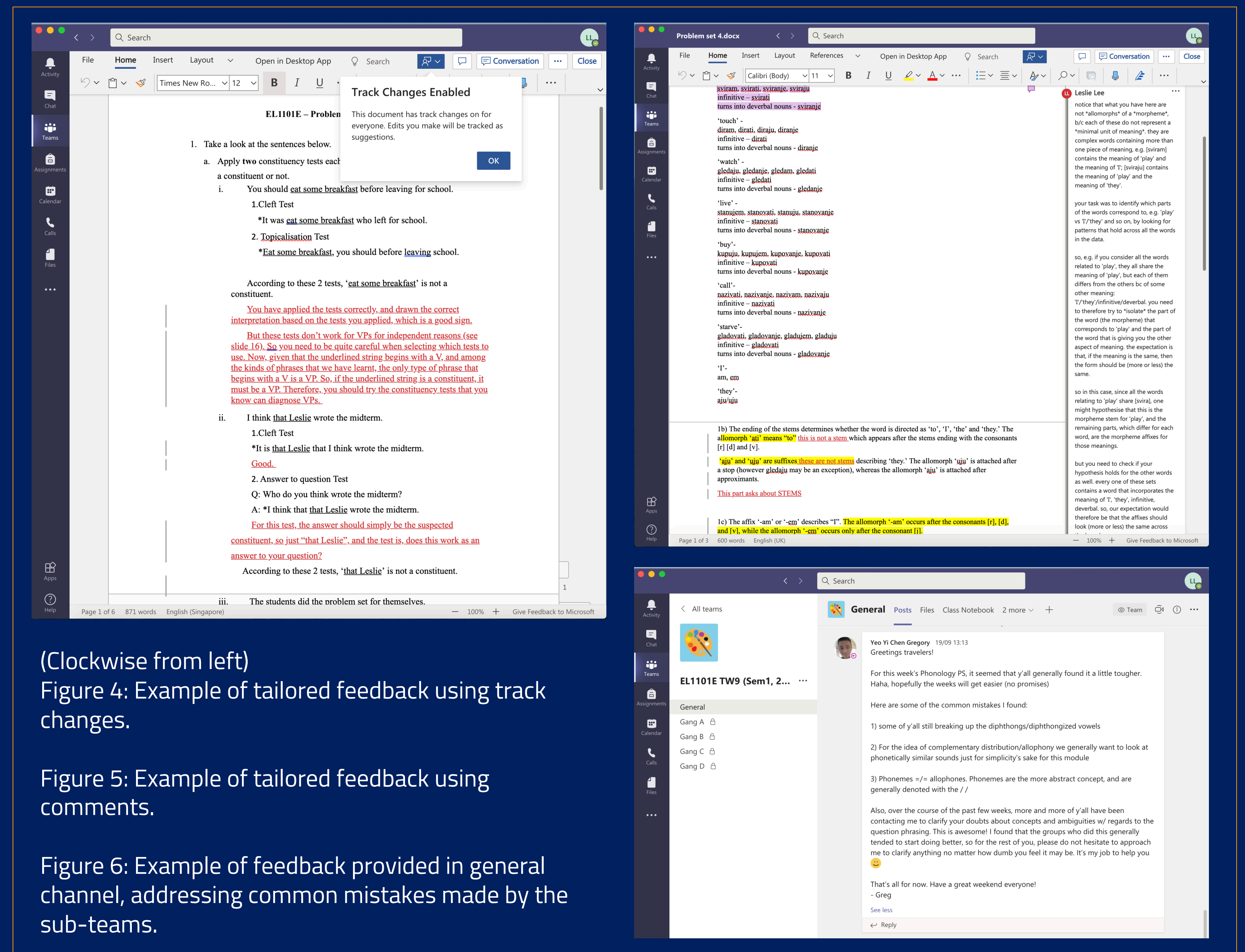
## 4. Intervention: Teams-based groupwork

- A **Microsoft Team** (henceforth "Team") was created for each section (Figure 1).
- Students in a section formed sub-teams ("gangs"\* in the images) of three to four members (membership was maintained throughout the semester).
  - \* Note: the term "gang" is sometimes used in Singapore to refer to a small, close-knit group, without criminal or other derogatory connotations.
- Within each Team, **private channels** were created for each sub-team (Figure 2).
- Only sub-team members and the instructor/TAs had access to their private channel, making it a dedicated space for the sub-teams to work in.
- Students were able to leave real-time messages on a permanent message board, initiate video calls, and create/edit documents within their private channels.
- Every week, students would create a new document within their private channel and work together on a solution to the week's problem set (Figure 3).
- Students were graded on these, instead of class participation – **eliminated problems associated with assessing participation**.
- Problem sets were assigned after lectures, which were conducted synchronously online over Zoom.
- Students had the flexibility of whether to use the scheduled section time to work on their solutions.

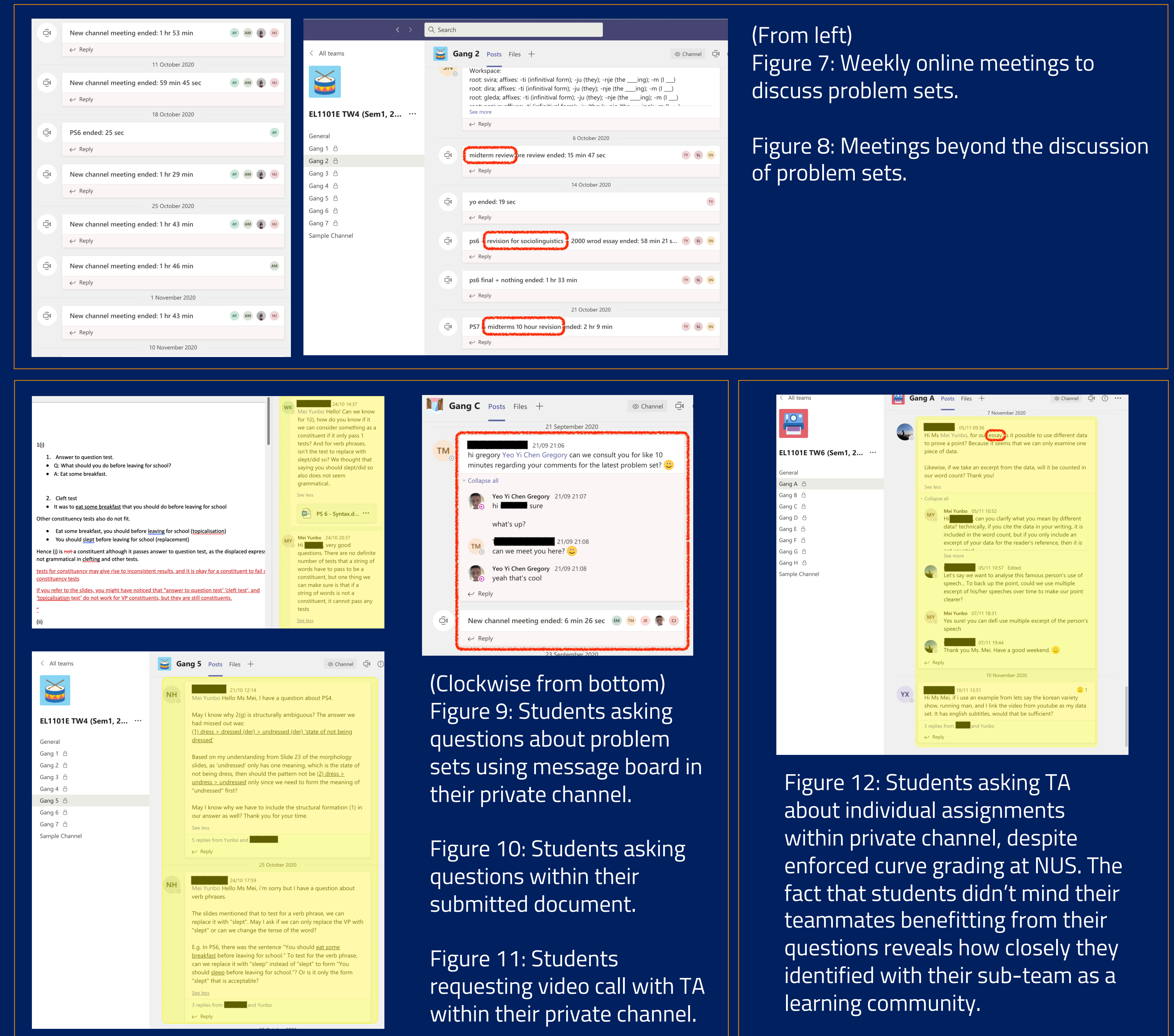


## 5. Evaluation: Quality feedback and learning communities

- The medium allowed the instructor/TAs to provide **high-quality, tailored feedback** on each sub-team's solution, which we were unable to do in the old model (Figures 4 & 5).
- We were also able to address common mistakes in the "general" channel (Figure 6).



- The use of groupwork and the provision of a bespoke space for each group to work in facilitated the **creation of learning communities, in spite of remote learning**:
  - Besides meeting weekly in their private channels to work on the problem sets (Figure 7), students also met to revise for midterms, demonstrating that their perceived utility of these learning communities was not restricted to the problem sets (Figure 8).
  - We saw **much closer interactions between students and instructor/TAs than in traditional sections**, with sub-teams engaging us with questions about the problem sets in various ways allowed by the medium (Figures 9-11), both before and after submitting their solutions.
  - Students even asked TAs about their individual assignments in their private channels (Figure 12).
    - Students are graded on a curve and NUS students are notoriously grade-conscious: the fact that students didn't mind their teammates potentially benefitting from their questions demonstrates the extent to which they treated their sub-team as a learning community.



- Drawbacks
  - Graduate student TAs don't get to gain experience with actual classroom management.
  - Develop hybrid model, with occasional, complementary face-to-face sessions, perhaps for review/revision.
  - "Sleeping"/uncooperative teammates.
    - Important for students to surface such issues early, so that the instructor can act quickly.
- Conclusion
  - There are benefits to continuing with this model even when face-to-face classes resume.

[1] Angelino, L. M., Williams, F., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *Journal of Educators Online*, 4(2). <https://doi.org/10.9743/JEO.2007.2.1>

[2] Liu, X., Magiuka, R. J., Bonk, C. J., & Lee, S. (2007). Does sense of community matter? An examination of participants' perceptions of building learning communities in online courses. *Quarterly Review of Distance Education*, 8(1), 9-24.