

STRUCTURING SHORT-TERM GROUP WORK ONLINE, WITH ZOOM BREAKOUT ROOMS

Preliminary results of the Spring 2020 Stanford student survey suggest that online learning is leaving many students feeling isolated in their learning environments. One way instructors are attempting to increase student interactions is through the use of group work, where two or more students collaborate to solve a problem, discuss a prompt, create a product, etc. Below are some suggestions for how to use Zoom breakout rooms, how to structure group work, and group work models you might consider. Keep in mind, students have reported that their remote learning environments are sometimes full of distractions and interruptions. Providing structure and clear, written instructions can help students to not get lost during group work.

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A. ZOOM TIPS

1) Zoom breakout room basics

[How to create breakout rooms in Zoom.](#) As the Zoom host, you can automatically (randomly) or manually assign participants to breakout rooms. Note that only the Zoom host (not co-hosts) can:

- create breakout rooms
- move participants and co-hosts between breakout rooms

[How to pre-assign participants to breakout rooms.](#) If you know ahead of time how you would like to form small groups, Zoom allows you to pre-assign groups using participants' email addresses. Note that

- you can manually type in or copy and paste the email addresses, or you can upload a .csv file. Uploading a file is usually easier if your course is large. Zoom provides a formatted [sample .csv file](#) you can fill out.
- participants must log into the Zoom meeting using the same email address used in the pre-assigned groups. Since it is best for security to require participants to log in with authenticated credentials for Zoom meetings, you can use students' Stanford email addresses and instruct them to [log in via Stanford SSO](#).
- pre-assigned groups can still be edited during the meeting in case students are absent (and you need to rearrange groups), you have last minute guests, or participants log in with the wrong email address.

Helpful notes about breakout rooms:

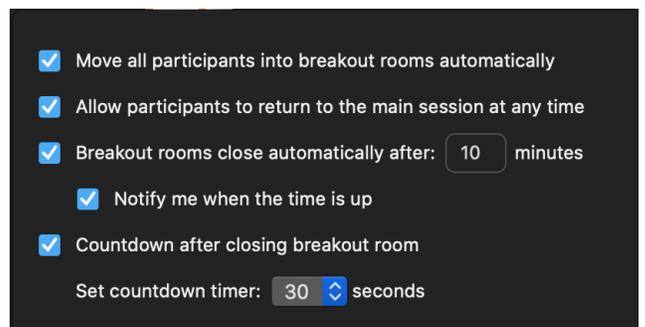
- When automatically assigning participants to rooms, co-hosts will also be assigned.
- Co-hosts can leave and join different breakout rooms after they are initially assigned to one.
- You cannot create additional rooms while breakout rooms are open.
- Group assignments remain throughout the Zoom meeting until the host hits "Recreate." In other words, if you automatically assign breakout rooms and then close the rooms, Zoom will default to the previous grouping unless you hit "Recreate" or "Recover to pre-assigned rooms."

2) Get very familiar with the Zoom breakout room options.

Zoom provides several options for you to structure breakout rooms. After clicking "Breakout Rooms," select "Options" to bring up this window:

Suggestions:

- See the table at the end of this document for details.



3) Let students know how to ask for help after they join their breakout rooms.

If students are sent to breakout rooms without knowing how they can get help, they may reach an impasse and then wait silently or get off-task until breakout rooms end.

Suggestions:

- Let students know that they will have an “Ask for Help” button at the bottom of their breakout room windows. This will notify the Zoom host that someone is requesting help and the host can join the breakout room themselves or send a TA to the breakout room to help them.
- If your class is large and you do not have enough people on the teaching team to send to different breakout room that need help, you can instruct your students to send a representative to leave their room to go back to the main room to ask their question and then re-join their breakout room. This requires that you select the option to “Allow participants to return to the main session at any time” before you create the breakout rooms. As the host, you can monitor where students are by clicking “Breakout rooms”, whether you remain in the main room or join a breakout room yourself.

4) Make sure you share instructions for group activity with students in Zoom chat or in a shared document.

Instructors will often share a PowerPoint slide with instructions for the group task on it before initiating breakout rooms. However, once breakout rooms open, student will no longer see the shared screen and will often forget what the instructions were, or might be distracted when you explain the instructions.

Suggestions:

- Copy and paste the instructions in Zoom chat. When students go to their breakout rooms, they will still see the chat log history. Make sure you have updated to the latest version of Zoom.
- Provide the instructions in a separate document (e.g., a file on Canvas or a shared Google Doc) that students can access during class, and ask students to open the file before you start breakout rooms.
- Before opening breakout rooms, ask students to take a screen shot of your instructions using the following shortcuts:
 - PCs: PrtScn, CTRL + PrtScn, or Windows + PrtScn
 - Macs: Command + Shift + 3 (capture an image of the whole screen), or Command + Shift + 4 (capture a selected portion of the screen)

5) Teach students how to share their screens and use the whiteboard feature.

Depending on the task you have assigned to groups, it may be helpful for a student in each group to share their screen so that all group members can be sure they are looking at the same thing:

Suggestions:

- Randomly assign one group member to share their screen. They could share the file you’ve provided them with the instructions for the task, the problem they are to solve together, the Google Doc they are to fill out together, etc.

- Have students use the annotate feature in Zoom to write or draw together. The feature works on both a shared screen and a whiteboard, and can be saved as an image. The various annotate tools are:



- Randomly assign one group member to share a whiteboard. All participants in the breakout room can contribute to the whiteboard simultaneously.
- Instruct students to save their whiteboards before the breakout rooms close.

B. TEACHING TIPS

1) Be very clear about how students should be spending their time in breakout rooms.

a) What task should students accomplish while in breakout rooms?

When providing students instructions for the group activity (see A4 above), make sure those instructions provide a very clear task, outcome, or goal to target during their time in breakout rooms. Not only will this save time (as students won't be discussing "what exactly are we supposed to be doing?"), it can also help keep them on task and accountable for the time. Simply asking students to talk about a prompt, idea, or problem is sometimes not enough to fuel a discussion.

Suggestions:

- Provide students with a worksheet, form, table, etc. to complete together.
- Tell students that their group's Reporter (see B2 below) needs to be prepared to share the take-aways from their discussion.
- Instead of asking students to generally "discuss" an idea in their groups, ask them to
 - Provide X number of examples, solutions, recommendations, or predictions
 - Compare and contrast
 - Defend, argue, justify, critique
 - Come to a consensus
 - Brainstorm or list

b) What should students do if they complete the task early (before breakout rooms close)?

If left unsaid, students may not utilize the extra time effectively if they complete their task early.

Suggestions:

- Take the task one step further. For example, come up with two more examples, find an alternate method that will give you the same solution, rank your recommendations, determine how would your prediction change if Y was different.
- Begin exploring a resource in preparation for the next part of class.
- Review class material and record questions your group has for the teaching team.
- Return to the main room and take a break. Be sure that students know when to return.
- Get to know each other. Provide students with a prompt to share something about themselves.

2) Use randomly assign roles to help students start the conversation and to support equitable participation.

Navigating social etiquette over video conferencing can be challenging. Without typical face-to-face cues and steady internet connections, it might feel awkward speaking first or it can be challenging to know when it is okay to speak next. In either case, putting students into groups and asking them to discuss can often leads to the most vocal student taking charge of the conversation and the least vocal student becoming the notetaker. Using randomly assigned roles not only supports equitable contributions from each group member, but also helps to get the conversation started. Below are some suggestions for roles you might assign and how you might randomly assign them.

Suggestions for roles:

- *First sharer*: speaks first. After giving all students a minute to think about the prompt, this person will be the first to share their ideas with the group
- *Scribe*: tracks and writes down notes for their group. The notes could be in a shared document (e.g., a Google Doc) or on the person's personal computer and they can share their screen with the group as they type.
- *Reporter*: uses the scribe's notes to report ideas from the group to the whole class
- *Timekeeper*: keeps track of time and encourages the group to move along when necessary
- *Equity monitor*: encourages all team members to share their ideas. This person makes sure that anyone who wants to share, gets a chance to
- *Questioner*: encourages the group to consider alternative perspectives. This person could be a devil's advocate to challenge the group's reasoning.

Suggestions for random assignment:

Provide students with a numbered list of roles, then have them order themselves by a random feature to determine which role they get assigned. Keep in mind that having students order themselves by a fun fact often takes longer because students may begin socializing. If you would like students to order themselves quickly, choose a feature that is obvious and requires little to no discussion. If you would like students to socialize and get to know each other, choose a feature that involves more conversation.

“The person...

- whose first name is closest to the end of the alphabet...
- whose last name is the shortest...
- wearing the darkest colored top...
- wearing the shortest sleeves...
- who is currently the furthest away from campus...
- who woke up the earliest this morning...
- whose hometown is the closest to campus...

will take role #1. The next person will take role #2 and so on.”

3) Don't change group composition too often

Some students have reported not enjoying breakout rooms because they are not able to get to know their classmates when instructors randomly assign new groups each time.

Suggestions:

- Consider the number of class sessions your course will have throughout the term. If you use multiple breakout rooms per class meeting, you might keep the same groups throughout one class and only switch them between classes. Otherwise, you might keep the same groups throughout each week or unit.
- Consider your course size. If your course is small, it may be reasonable for all of your students to get to know each other. Otherwise, you might group students by section and only change groups within each section.
- Consider your goals for the course. If some of your goals are for your students to develop communication, collaboration, and argumentation skills, decide how often they should be practicing these skills with different classmates.
- Consider your objectives for each group activity. Would achieving those objectives be more or less challenging with new group members? Is the challenge a good learning experience or an unnecessary hinderance?
- When creating new groups, consider providing students a few minutes to introduce themselves to each other at the start of breakout rooms.

4) Monitor group discussions (optional)

While it is relatively easy to listen in on small group discussions in person, it is more challenging to do online. Even if students are not requesting your help while in their breakout rooms, you might want to make sure that they are on the right track.

Suggestions:

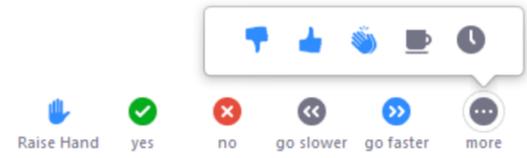
- As the host, you have the ability to join and move between breakout rooms and the main session. You might let students know that you will be circulating among the rooms and to not let your presence interrupt their discussions. You might also consider turning your video off while circulating so that students are not tempted to read your reaction to their discussion.
- If you have TAs, you can assign them to rooms or move them between rooms to monitor discussions.
- You can ask students to take notes during their discussion in a shared document, such as a Google Doc or Google Sheet. If you structure the file with separate sections and direct the groups to take notes in their designated section, you can monitor all of the groups by reading their notes in the shared doc.
 - Here is an example [Google Doc](#) you can save and use.
 - Here is an example [Google Sheet](#) you can save and use. Note that Google Sheets have a “Protect Sheet” feature that allows you to lock entire sheets or specific cells so that no one can edit them. You could use this feature to protect the instructions and prevent students from accidentally deleting them.
- Don't monitor group discussions. Sometimes, discussions can be more engaging or productive when an instructor is not present.

5) Give students an option to opt out of group work

Zoom fatigue can make online group work very unproductive and sometimes stressful for some students. Consider offering students an option to opt out of participating in breakout rooms.

Suggestions:

- Ask students to send you a private chat message to indicate that they would like to opt out of breakout rooms and would rather work independently. Then, exclude these students when you form the breakout rooms.
- Ask students to use Zoom’s nonverbal feedback feature to indicate that they would like to opt out of breakout rooms. Any of these icons can work for this, but the coffee cup (“need a break”) or the clock (“away”) might be more suitable.
- You could also uncheck the breakout room option to “Move all participants into breakout rooms automatically” and allow students who prefer to work independently to remain in the main room and as other can click the pop-up window to join rooms.



C. SOME GROUP WORK MODELS

1) Think-Pair-Share

- Propose a question and allow students to *think* independently for some time.
- Create breakout rooms with two students in each room and ask the students to discuss in *pairs*. Help students to decide randomly who speaks first and who will be the reporter.
- Close breakout rooms and ask all or some reporters to *share* what they discussed in their pair.

Instructors sometimes skip the *think* step of this model, but it is important to let students who need silence to process information have that time to think before others start talking. Furthermore, asking students to explain a concept to another student (i.e., reciprocal teaching) while in pairs, helps them learn the material better. Finally, students can compare their responses to those shared by other pairs during the last step and receive feedback from other students and the instructor.

2) Jigsaw

- Identify a learning module that can be broken into parts (e.g., students need to read four different research papers about a similar topic).
- Form small groups and have each group focus on one of the parts (e.g., each group reads one of the four papers). This can be completed asynchronously.
- During class, allow the groups to discuss their part with the goal of being able to explain it to other classmates.

- d) Reform the groups so that each new group has one member that focused on a different part. Each group member now explains their part to the new group.
- e) Provide the new groups with a problem to solve that requires the integration of the different parts.

Make sure to only use this model for material that sensibly breaks into complimentary or dependent parts. Otherwise, students may find little motivation to learn the other parts from their classmates. For another example of how you might use this online, check out <https://kpcrossacademy.org/techniques/jigsaw/>

3) Round robin

- a) Pose an open-ended question to all students
- b) Give them some time to think independently
- c) Randomly decide the order of sharing in breakout rooms
- d) Create breakout rooms and instruct students to allow each person to briefly share their response to the question.

This activity allows every student in your course to share. Be explicit about how much you want students to share, e.g., one word, one sentence, or for one minute. Compared to Think-Pair-Share, groups are usually larger but the responses are generally shorter. In other words, Think-Pair-Share might allow students to delve deeper, but Round Robin allows them to hear more perspectives.

4) Two-stage “exam”

- a) Students complete an exam (or exam-like questions) individually, keep a copy of their responses, and submit another copy to the instructor. This can be completed asynchronously.
- b) Students are put into small groups, complete the same or similar exam, and submit their answers together. This can be completed during class in breakout rooms or groups can meet separately and complete the second stage by a certain deadline.

It is not necessary that these “exams” be graded or worth a significant portion of a student’s grade. This could be used simply as a learning activity. If you do decide to grade this activity, it is recommended that the individual portion count for 85-90% of the grade and the group portion count for the rest, only if it is higher than the student’s individual score. In other words, if the student’s individual score is higher than their group score, their grade will be based solely on their individual score. Find more information about two-stage exams [here](#).

An added benefits of the **in-person** two-stage exam is the immediate feedback that students receive when questions are asked in a multiple-choice format. Scratch cards called [IF-AT \(Immediate Feedback Assessment Technique\) cards](#) have a star hidden beneath one correct answer choice for each question, letting students know immediately if their group’s answer was correct or if they need to discuss which answer they should try next. You can create a digital version of IF-AT cards using Stanford Qualtrics. [Click here to see an example](#) and contact ctl-stanford@stanford.edu if you need assistance creating an online version for your course.

5) Small group discussions

For a variety of methods to structure small group discussions such as Snowballing, Strategic Questioning, and Writing Discussion, check out:

[Brookfield, S. D., & Preskill, S. \(2016\). The discussion book: 50 great ways to get people talking. John Wiley & Sons.](#)

Option (See A2 above)		What it means	How you could use this feature
Move all participants into breakout rooms automatically	<input type="checkbox"/>	A pop-up window will appear asking participants to click a button to join their breakout room	-To provide participants with the option of not joining breakout rooms (e.g., students have the choice to work independently or in small groups). You can instruct them to join the breakout room or remain in the main room and work independently. You may need to move students to recreate full groups. -If you have TAs or other instructors in the Zoom meeting with you who you want to remain in the main room, they can choose not to join the breakout rooms and will remain in the main room. However, it is generally better to just not assign them to breakout rooms
	<input checked="" type="checkbox"/>	Participants will be moved to their breakout rooms immediately	If a student gets distracted, they might lose a pop-up window to join a room. Use this feature to save time and reduce confusion, since participants will not need to click anything to join their room.
Allow participants to return to the main session at any time	<input type="checkbox"/>	While in a breakout room, if a participant clicks “Leave,” they can only leave the meeting entirely.	If you want to make sure that students remain in their breakout rooms until you (the host) closes the rooms.
	<input checked="" type="checkbox"/>	If a participant clicks “Leave,” they have the option to leave the room and return to the main room or leave the meeting entirely	If you want students to be able to move between their breakout rooms and the main room. For example, if you want students to be able to return to the main room to ask questions and then return to their breakout rooms. (See A3 above)
Breakout rooms close automatically after __ minutes	<input type="checkbox"/>	Breakout rooms will close when the host clicks the button to “Close all rooms”	If you are unsure how long a group activity will last and/or if you don’t want students to be pressured by a countdown clock. You might instruct students to rejoin the main room whenever they have completed their group work.
	<input checked="" type="checkbox"/>	Breakout rooms close after the set time and all participants will see a countdown timer in their breakout rooms. If you choose the additional option to be notified when time is up, rooms will not close but the host will be asked if they would like to close the rooms	Use this feature if you have an estimated amount of time for your students to complete their small group activity. This way, students know how long they are expected to spend on the task, and they can also better share the time with their peers if they know how much time remains and who has not had a chance to contribute yet.
Countdown after closing breakout room. Set countdown timer: __ seconds	<input type="checkbox"/>	When the host clicks “Close all rooms”, participants will immediately be pushed to the main room	If you have strict time constraints on your activity, you may want to end breakout rooms abruptly. For example, if you want students to brainstorm ideas for exactly 3 minutes.
	<input checked="" type="checkbox"/>	When the host clicks “Close all rooms”, participants will see a pop-up window with a countdown timer. They can click and return to the main room or wait until the timer runs out and be pushed to the main room.	If you want students to be able to wrap up their conversations before rejoining the main room, you may to provide them with 30-60 seconds to finish.