FOR TAs

Small Group Activities
A Guide for Planning & Implementing

Small group activities are an excellent way to create a different dynamic in the classroom. They can instantly increase the level of participation in your classroom, as students feel less is at stake to speak in front of a smaller number of people. And with multiple groups working on a task, you have more people actually engaged with the material. As students interact more with each other, share ideas and collaborate, you create a richer learning environment.

Group work is valuable to your students ...

- ☑ It increases the number of students that can participate at any one time.
- ☑ It gives students the opportunity to learn from and teach each other. Students often learn better from each other than they do from a teacher (Barkley et al. 2005, 16–20).
- ☑ It very deliberately shifts the balance of work to the students. In a small group setting, each student has a greater responsibility to think and contribute.
- ☑ It fosters interpersonal skills highly valued by employers, not to mention friends, neighbors, and family.
- ☑ It exposes students to different approaches and ways of thinking.
- ☑ It creates a sense of belonging that combats the anonymity and isolation that many students experience at a large campus.

Group work is also valuable to you ...

Using small group activities in your discussion section gives you an opportunity to see the students in action, so you can better assess the degree to which students are mastering a particular topic, concept, or skill.

And the end result ...

Better process, better product! Groups frequently devise more and better solutions than the most advanced individual (Barkley et al., 2004; Cooper et al., 2003).

This handout includes:

Portions of this handout were adapted from Berkeley's Graduate Student Instructor Teaching & Resource Center: ***http://gsi.berkeley.edu/***

But will small group activities really work in my class?

YES! If you've tried small group activities in the past and haven't been satisfied with the results, or if you've been a part of a group activity and haven't enjoyed the experience, it might just mean that something about the design of the activity was amiss.

There are many factors that go into a successful small group activity. Consider the variables we describe in this handout, and experiment!

GROUP WORK ESSENTIALS

Successful group work activities require a clearly defined goal/product and highly structured task. So, as with any other day of class, you should have a plan. But small group activities require some special planning. Here are things to consider:

1. Learning objective
Before planning any activities for your session, you need to have a clear learning objective in mind. What skill, knowledge, or way of thinking do your students need to practice in order to succeed in the class? *(Refer to the Planning handout for more about this.)*

2. Specific task
What exactly will students be *doing* during the activity? The task to be accomplished by the students must be specific – e.g., decide, list, prioritize, solve, choose, create. It should also call on the exact skills you are trying to get your students to practice.

When to use group work

Is a small group activity the best way to accomplish this objective? What will students gain from the small group experience that is different from solo work or large group discussion?

A good activity for small groups meets one or more of the following criteria:

- requires an exchange of ideas
- is sufficiently difficult, and would benefit from multiple brains
- requires multiple roles.

"Discuss" is too vague. If you tell your students to discuss a concept, they may make a few general comments and then turn to discussing what they did over the weekend. Instead, make sure you have concrete and descriptive assignments. For example, rather than "Discuss projectile motion," try "Solve for the final velocity of the projectile and explain your answer." Instead of "Discuss the use of technology in the classroom," try "List three pros and three cons of using clickers in the classroom."

You also need to vary the format of the tasks from day to day. For example, on one day students might generate the questions they want to analyze; in another session, students may give arguments or provide evidence for or against a position or theory.

3. Expected product / reporting out
There *must* be a way for students to share the work they just did – with you, with a few other students, or with the whole class. This could be in the form of a verbal report given to the class, a diagram drawn on the board, a worksheet turned into you, or something else entirely. Use this as an opportunity to really think creatively.

Some form of reporting or closure needs to be built into every small group activity in order for students to feel like they got something done.

If you decide that it is valuable for each group to give a verbal report to the whole class, keep a couple things in mind:

- Either you, or a member of the group, should capture each group's main ideas on the board. Ideas conveyed only orally are harder to follow and retain. By taking notes, it not only adds to the credibility/reality of their work, it also helps everyone remember what each group says.

- Each group should be given an equal chance to report. And since a series of verbal reports can be a lengthy process (especially if you or other students want to add something) you should plan accordingly. Don't leave reporting back until the last few minutes of class and then discover you've run out of time. Also try to keep a tight rein on the reporting, and don't let one group's report lead to a discussion tangent that takes up another group's time.

4. Motivation

Why are your students going to do what you ask? What will motivate them to participate rather than sit silently. Here are a few aspects of motivation that you can use when planning a small group activity:

- *Accountability:* Make sure that someone will see the product of group work . Plan to either collect it or share it with the rest of the class. If students understand that the effort they put in will be noticed, they are more likely to try their best.

- *Self-Interest:* Tell students "what's in it for them." Keep in mind that students are often motivated by grades, so explicitly point out how participating in the activity will help them succeed with a specific assignment or test.

- *Reward/Competition:* If you can engineer an activity where there is a "winner," you can often greatly increase the engagement of the students. For example, create some sort of game show and offer a low-stakes reward. The possibility of victory can go a long way in getting your students enthusiastic about a task.

5. Time allotment

Decide beforehand how long the activity will take:

- For the portion of the activity where students are actively working in groups, set a time limit and err on the side of too little, rather than too much. This will create a sense of urgency in the students, and (hopefully) inspire them to get right to work. You can always decide to give more time if necessary, once the activity is in progress.

- If you expect the task to take more than about five minutes, either create self-check milestones within the task to help students gauge their progress, or break up the big task into a series of shorter tasks, with students reporting back after each segment. Clearly announce these checkpoints so groups don't fall behind.

- For the reporting out phase of the activity, you may want to plan more time than you think will be needed. Verbal reports, in particular, can take a significant amount of time. And you want to make sure each group gets an equal opportunity to share results with the whole class.

It's pretty common to over or underestimate the time needed for group work. If this turns out to be the case, you need to decide if it is better to make your students stick to your schedule, or if it is appropriate to change the schedule because you are happy with how the activity has unfolded in the classroom. Refer back to your learning objective to help you make this decision.

6. Group size

The optimal group size can depend on many factors. For example, consider how long it will take to form the group versus how long the activity itself takes.

- Pairing is great for 30-second or 1-minute problem solving.
- Groups that work together for 10-45 minutes might be as many as four or five people. But for such large groups, it's important to assign roles within each group so that everyone participates (e.g., recorder, reporter to the class, timekeeper, monitor, facilitator).

How do I know what group size will be right for my activity?

As you gain experience using group work, it becomes easier to predict what group size is going to work best. To get started, groups of two to three are usually a safe choice.

7. Group composition
Small groups or learning teams can be formed in four ways:

1. Randomly
2. Instructor-selected
3. By seat proximity
4. Student-selected

} *These tend to avoid cliques and ensure that students interact with different classmates throughout the semester.*

Once you know your students fairly well, instructor selection can be useful for grouping students. Consider selecting groups or pairs with varying strengths and skill levels, as research suggests that groups of problem solvers with diverse skills consistently out-perform groups of problem solvers who are highly skilled in the same way (Page, 2007, cited in Davis, 2009, p. 194).

If a group activity will extend over more than one class period, we recommend that you select the groups. That allows you to create groups that are more likely to be successful in the long term. For instance, you might want to create groups that have students of similar "diligence" levels, in order to avoid a group in which one member does most of the work, while others slack off.

NOT SURE WHAT TYPE OF GROUPS TO FORM?

You can use students' attitudes towards group work to help you decide. Ask your students to respond to this question:

Which of the following best describes your experience of group work?

A. I like group work because my group helps me learn.
B. I question the value of group work because in the past I've ended up doing all the work.
C. I have little or no experience working in groups.
D. I have different experience of group work than the choices above. (Please explain.)

Those who check "B" can be put into a group of their own. They might find this to be the first time they are really challenged and satisfied by group work (adapted from Byrnes and Byrnes, 2009).

8. Physical arrangement of groups
In most cases, in order to "form groups", students have to *actually stand up and go somewhere else in the room*. They may hesitate; you must stick to your request!

Once students have moved, confirm that the physical arrangement will work for the activity you have in mind (if not, ask students to move until you are satisfied):

- Are the students close enough to each other so that they can all hear one another, but not so close that they feel uncomfortable? Are they facing one another?
- Do they have the workspace necessary to complete the task (do they need a table or some space on a chalkboard)?
- Do you have a way to easily navigate to each group so that you can check in on progress?

If the room has moveable tables and chairs, count yourself lucky. You can arrange the room in whatever configuration works best. If you're in a room with fixed seating, you may need to get creative, or ask for another room entirely (you really can do this: just call Room Scheduling at 475-7600).

9. Giving instructions
We suggest arranging the students in groups (see above) *before* giving them instructions for the group activity, as the physical movement involved with group formation tends to be distracting.

We strongly recommend that instructions be communicated verbally and in writing (on a piece of paper, on the board, etc.). If students get distracted or forget what they are supposed to be doing, written instructions will help get them back on task without you needing to intervene.

10. Fostering group interaction

Before group work:

If students are not used to working in groups, establishing some discussion guidelines with the class about respectful interaction can foster positive and constructive communication.

During group work:

As tempting as it may be, do not disengage from your class and sit at the front of the room!

- Circulate and listen to your students. Are they on task, or are they talking about something else? Are students understanding the concepts and the assignment, or do they seem stuck and confused? Do they have questions for you? Pull up a chair and join each group for a while (just make sure you don't visit one group for too long - you need to visit all the groups).

- You may find that the students fall awkwardly silent when you walk by or listen to their discussion. This is only temporary, and it should stop once your students are familiar with you and the group-work format. Because unfamiliarity drives this reaction, it is good to implement group work very early in the semester and to use it often.

- When a student in a group asks you a question about the content, a natural reflex is to provide the answer. But consider empowering your students to find their own answers. This is especially important early in the semester when your class is forming group-work habits. Frequently, a student asking a question has not yet discussed it with the group and is not aware that members of the group either know the answer or have enough information to figure it out together. So how will you respond? Try asking the other group members how they would approach the question. If no one in the group has an idea, you can either give the group a start on how to answer it, suggest that they consult with a different group, or (as a last resort) answer the question yourself.

- If you're getting a lot of similar questions about the task (not the content), consider stopping the groups, drawing their attention to the written instructions, and then clarifying any unclear points.

11. Closing remarks from TA

This is critical to the learning process. Students need to know that the group work activity added to their knowledge, skills, abilities, etc. In your summary remarks, weave together the comments, products, and ideas of the students in from their small groups and show that the learning objective for the activity was met. This is also an effective way to wrap-up and transition to the next task.

EXAMPLES OF SMALL GROUP ACTIVITIES

GROUP QUIZ

Students work in groups to develop questions they think could be on the next test. Then groups try to answer one another's questions (this can be in the form of a competition).

Learning Objective: Students will practice clarifying/reviewing content, as well as retrieval. They will take a metacognitive approach to course content.

Product: Questions that can be used for self-quizzing.

TIme: Variable; recommend 15 minutes for question creation and 15 minutes for quizzing each other.

Groups: 3-4 students. Students move to sit with their group, in a circle if possible.

Instructions to Students:
1. In groups, students write questions based on previous work. The questions should be in the style of the actual test format.
2. When time is up, the instructor selects a group to ask the first question and one to answer it. The answering group is given 30 seconds to discuss and come up with an answer.
3. If the answer is correct, the answering group gets a point. If the answer is incorrect, the asking group gets a point (and you can also open up the question to another group to try).
4. The process continues until each group has the opportunity to ask and answer a few questions.

Other Things to Consider: Encourage the groups to change and adapt their questions to make sure a variety of material is covered if another groups asks a similar question.

JIGSAW

Students discuss, learn, or review content in one group to become an expert on some aspect of a topic (one piece of the puzzle), then form new groups of "experts" in order to teach others and create a whole picture of the puzzle.

Learning Objective: To clarify and review content. To practice teaching others.

Product: Each student will share and receive information in order to create a complete picture of the content. Notes may be taken.

Time: Variable

Groups: 3-5 students. Students move to sit with their group in a circle if possible.

Instructions to Students:
1. Divide a chapter or portion of course material up into as many sections as you have groups.
2. Assign each group a specific section to become an "expert" on. Give each group a specific length of time to discuss their section, focusing on the main points and take-aways.
3. Create new groups composed of one member from each expert group. Give students a specific amount of time to share their area of expertise.
4. Come back together as a class and go over any additional questions or areas that are still unclear.

"DO I HAVE TO DRAW YOU A PICTURE" (aka **CONCEPT MAP/ATLAS**)

Groups create a drawing or diagram that represents a shared understanding of the topic.

Learning Objective: Students will practice articulating connections between concepts and evaluating the relative level or importance of concepts.

Product: Each group will create and ompare their diagram to others through a "poster session" or brief explanation.

Time: This can take a while, depending on the scope of the topic. Plan to allow at least 3 minutes for brainstorming an initial topic list, 5 minutes for a preliminary diagram, and another 5 minutes to revise and expand.

Groups: Threes, formed randomly, arranged with a writing surface between them or on a wall nearby.

Instructions to Students:
1. Get into groups of three.
2. Brainstorm ideas related to [topic X].
3. Create a diagram that shows how all the ideas on your list are connected.
4. Revise your diagram, adding any needed ideas and connections, until it describes [topic X] completely.

Other Things to Consider: Show a sample concept map of a separate or unrelated topic. Use the sample to show students the level of complexity you expect from them by pointing out the number of concepts, number of linkages, symbols or text that indicate different kinds of meaning, etc. Whichever metric you use, ask students to calculate the same for their own concept map as a way to self-check their product ("plan to include at least 20 ideas, as this one has").

GALLERY WALK

Groups create a visual product that represents a shared understanding of the topic. Students walk around the room to observe the results and comment on it with (feedback and questions) with post-it notes.

Learning Objective: Students synthesize their understanding of a subject and then provide input to other groups on how to improve their representation.

Product: Visual representation of ideas (in pictures and/or words). Possible post-it note feedback.

TIme: Very flexible and dependent upon complexity of ideas presented. After an initial time frame for the groups to create their poster (minimum 3 minutes), the gallery walk can be done very quickly (30 seconds per group), or last for minutes per group for deeper thinking and comments. Allot for a 1-2 minute summary and closure statement to capstone the experience.

Groups: Threes, formed randomly, arranged around a writing surface and the poster canvas.

Instructions to Students:
1. Get in groups with large paper.
2. Create a visual representation of the topic using pictures and/or words.
3. Post your results.
4. Walk around the room to see what other groups came up with. Use post-it notes to provide feedback, or ask a question, or offer a suggestion.

Other Things to Consider: Give each group a different focal point of the larger topic, so that when they gallery walk students will see different facets of a broader subject.

Be clear in what you expect the groups to produce, and if possible have an example on a different topic from years past available as a model.

THE LEARNING CELL

Students pair up and alternate between asking and answering questions about recent course work or readings.

Learning Objective: Students practice quick recall of relevant information and practice "thinking like the professor" to generate questions.

Product: Each student will get information or feedback verbally from their partner. Notes may be taken.

Time: Depending on the complexity of questions, about 6 minutes for each student to generate and ask three questions. This activity can be continued for a second or third "round" with the same partner or a new one (students can ask the same questions to their new partner).

Groups: Pairs, arranged by instructor, face-to-face.

Instructions to Students:
1. By yourselves, generate three questions about recent course work or readings.
2. Get with your partner and take turns asking and answering questions.
3. When you've used up your original questions, generate more based on the questions your partner was asking!

Other Things to Consider: Share information about the levels of learning and ask students to identify what type(s) of questions they've written (i.e., factual recall, conceptual, application, analysis, etc.). If students are changing partners, ask them to revise or improve their questions each round.

TRUTH STATEMENTS

Students determine whether or not a statement is true based on the information presented in the course.

Learning Objective: Students practice critical thinking by analyzing and evaluating information. They also practice articulating a line of reasoning.

Product: Depending on version (as described below) students will either create a list of truth statements, or make discernment on a handout.

Time: Variable

Groups: 3-4 students

Instructions to Students: Version 1: Once you have divided into groups, you will receive examples of truth statements. Evaluate them for verity, and share your work with the class.

Version 2: Work with your group to generate three closed statements (objective statements that are either true or false), one of which is false. Exchange statements with other groups, and ask them to determine which of the statements is false.

Version 3: Work with your group to generate three endings to open-ended statements (e.g., "It is true of the Gilded Age/quadratic equations/etc. that . . ."), As a group, choose one or more statements to share with the class.

SPEED-DATING for PEER EDITING

Each student will read their partner's paragraph, identify the four components of the paragraph, and generate constructive feedback to share with their partner.

Learning Objective: Students will ecognize the characteristics of a strong intro paragraph (attention getter, thesis, organization, tone).

Product: Each student will share their feedback with their partner verbally, the other student will take notes.

Time: 4 minutes per round, probably want to make sure there are at least 5 rounds, if not more.

Groups: Pairs, formed randomly, arranged face to face with writing space in between.

Instructions to Students:
1. Get into pairs.
2. Exchange paragraphs.
3. You will have 4 minutes to read and give feedback on:
   a) attention getter, b) thesis statement, c) tone, d) organization.
4. Switch pairs!

Other things to consider: This activity works best if you give very clear instructions on what they should specifically be looking for in the writing, as well as the best way to deliver useful feedback (to avoid a student giving unhelpful comments like "it's great").

Arrange the seats ahead of time and decide on how each new set of pairs will be formed, so that the switching of partners doesn't cause confusion or take too much time.

This activity doesn't need to be limited to an introductory paragraph, it could be used for any short writing sample, or perhaps a paper outline. In any case, it requires that students bring the piece of writing to class.

PROBLEM SOLVING IN GROUPS

Small groups are also useful for working out complex analytical or mathematical problems. Students have the opportunity to explain and defend their reasoning with their peers.

Activity	Advantages	Watch for ... & Helpful TIps
Give the whole class a single problem, break into groups to solve it, and then come back as a class and discuss the problem, either by having groups report out or by leading the discussion yourself.	You know everyone is exposed to the correct way of thinking about things, so there is good closure for each problem.	This approach can be slow, so less material may be covered. Have a cache of extra or more difficult problems on hand to continue engagement for faster groups. Alternatively, consider making those students "ambassadors" of the topic to help other groups.
Give each group a different problem, and have the groups report back to the class to walk through the solutions.	Students get some practice teaching as well as good exposure to problems and solutions.	Students may not get to practice as much actual problem solving with this approach. Challenge groups to identify the steps in their problem solving approach.
Give each group a different problem, have them solve it, and then have these groups split up and re-form in such a way that each new group has someone experienced with each of the problems. Then they can explain the solutions to each other. (This is the "Jigsaw" activity applied to problem solving.)	Students get a lot of practice explaining, as well as good exposure to problems.	Students don't get to practice on many different problems. Reviewing academic vocabulary before this activity may be helpful.
Give the whole class a set of problems and have students discuss all the problems within each group.	Students work through more problems without significant idle time. You can address difficulties specific to each group.	You may end up repeating yourself a lot. You also may be spread too thin, especially if several groups are stuck on different problems. Have envelopes with "hints" Ito drop off to struggling groups. Or if groups are stuck on the same problem, call the students back together and offer guidance to the whole class.

WAYS TO INCORPORATE WRITING

Writing can help foster participation in class discussion. Short writing assignments completed before, during and after class discussion or lecture can offer another avenue for student interaction, and can support the development of critical thinking.

Roundtable
A brainstorming technique in which students take turns writing on a single pad of paper, saying their ideas aloud as they write. Each students tries to add to what has already been said.

Reaction Sheet
After presenting a controversial topic, pass around several sheets to collect written reactions to these three questions: What ideas do you question? What ideas are new to you? What ideas really hit home? Follow up with discussion. As a variation, ask each student to write their own sheet or have small groups do so.

Student Self-Evaluation
Have students write a brief evaluation of their learning. After an essay (or project) have them answer the following: Now that you have finished your essay (or project, or set of problems, etc.), please answer the following questions. There are no right or wrong answers; I am interested in your analysis of your experience writing this essay (project, etc).

- What problems did you face during the writing of this essay/project/assignment?
- What solutions did you find for these problems?
- What do you think are the strengths of this essay/project/assignment?
- What alternative plans for this essay/project/assignment did you consider? Why did you reject them?
- Imagine you had more time to complete this essay/project/assignment. What would you do?

In small groups or pairs, have students discuss problem solving strategies and develop a plan to overcome obstacles for an upcoming essay/project/assignment.

REFERENCES FOR GROUP WORK

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TROUBLESHOOTING GUIDE

Your best preparation ...

What have you noticed?

- Sighs or eye-rolls from students.
- Group members are working, but not all together.
- Some group members are working, while some are not.
- Groups are doing wildly different things (in a bad way).
- One student is dominating the group.
- Groups are sitting silently, not doing much.
- After you give instructions to get into groups, students are slow to comply.
- You are getting the same question over and over from different students.
- Off-topic chatter.

What's really going on?

Issues related to the groups:

- A particular combination of students in a group doesn't work well together.
- Groups are too big.
- Students aren't sitting in a manner conducive to group work.

Issues related to the student/task interaction:

- Students don't have the skills or knowledge to accomplish the task.
- Students have had previous negative experiences with group work.
- Students don't see the value or point of the assigned task.

Issues related to the task:

- The task is too vague, or has not been clearly explained.
- The task is too easy. One person could do it by themselves.
- The task is too long, too complex, or has too many steps.
- The time limit was too long.

What you can do about it

1. Make sure you have a specific learning objective and task in mind.
2. Provide written instructions in advance.
3. Pause the activity to explain why these actions are important (relate to the course content and goals).
4. Check in with groups frequently to make sure they are progressing.
5. Invoke accountability. Call out students who aren't working as you would like.
6. Explicitly state the value and purpose of the task. What will students gain by working together?
7. Ask students to move into a configuration that works for the task.
8. Divide up task into parts, or create self-check milestones within the task.
9. Make sure the task is appropriate for group work (i.e., sufficiently difficult and requiring multiple people/roles).
10. Be deliberate about group size and composition (selection of members).

In the moment

Next time

Learning objectives accomplished!