



Teaching Toolkit

Large & Small Group Teaching

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Light and Cox (2001) describe that the lecture is almost synonymous with what higher education is all about, particularly for the undergraduates. It is popular as an efficient way to 'teach' large numbers of students, more recently though it has received bad press as to its position in relation to student learning.

To change away from a large lecture format often requires a complete curriculum review change, and many lecturers are not in a position to do this, they do not have choice in the class size that they teach. How then can a lecturer create the best learning environment in the class size that they teach?

Small group teaching has become more popular as a means of encouraging student learning. While beneficial the tutor needs a different set of skills for those used in lecturing, and more pertinently, small group work is an often luxury many lecturers cannot afford. A further consideration with small group teaching is the subjective perspective of what constitutes a small group. A lecturer used to taking 400 in a lecture would define 50 as a small group, while a lecturer used to a group of 50 would define 5-10 as a small group. In a discussion, where participation is assessed some students may not speak up in a group that begins to be get bigger than 10 participants and in addition tutors would find it hard to assess participation by individual students in groups with numbers greater than this.

Regardless of the group size the learning environment should provide an opportunity for students to obtain a deep understanding of the material. Biggs (1989) notes that in order to gain a deeper learning the following four components are important:

- **Motivational context:** intrinsic motivation, students need to see both learning goals and learning processes as relevant to them, to feel some ownership of course and subject.
- **Learner Activity:** students need to be active not passive, deep learning is associated with doing rather than passively receiving.
- **Interaction with others:** discussion with peers requires students to explain their thinking, this, in turn, can improve their thinking.
- **A well structured knowledge base:** the starting point for new learning should be existing knowledge and experience. Learning programmes should have a clearly displayed structure and should related to other knowledge and not presented in isolation.

General Techniques for Use in Small & Large Group Teaching

The following methods can be adapted for either large or small group teaching. Provided below are a selection of common flexible methods one may use in both large and small group teaching. These are open to adaption and interpretation to suit your individual needs, and were originally listed by Brown (1997).

Silent Reflection	Rounds	Three Minutes Each Way
Buzz Groups	Brain Storms	Syndicates
Snowballing/ Pyramiding	Fishbowls	Crossovers

Silent Reflection

This is where you give students a few minutes to think about a problem or issue. Ask them to write down their thoughts or ideas on a note pad. Keep the task specific. For example, ask them to write down the three most important, or positive, or expensive etc. aspects of an issue. It is often useful to ask them to write on post-its and then post them on, say, a notice board or the wall. Alternatively, ask them to share their ideas with their neighbour before moving into a discussion phase. This technique suits quieter students and ensures that everyone has the opportunity to provide feedback.

Rounds

Where groups are not too large (20 or so) go around everyone in the group and ask them to respond. People often use rounds as icebreakers or as part of the winding-up of a session. Try not to make the round too daunting by giving students guidance on what is expected of them. Keep it short. For example try and avoid questions like "I want everyone to give their name and then identify one aspect of the course that they know nothing about but are looking forward to learning about". In big rounds, students can be quite nervous, so make it clear that it's OK to pass and if people at the beginning have made your point, that concurrence is sufficient.

Three Minutes Each Way

Ask students in pairs to speak for three minutes on a given topic. Be strict with timekeeping. Your students might find this quite difficult at first, but it is an excellent way of getting students to articulate their ideas, and also means that the quieter students are given opportunities to speak and be heard. The art of listening without interrupting (other than with brief prompts to get the speaker back on target if they wander off the topic) is one that many students will need to foster. This pair-work can then feed into other activities.

Buzz Groups

Give pairs, threes, fours or fives small timed tasks which involve them talking to each other, creating a hubbub of noise as they work. Their outcomes can then be shared with the whole group through feedback, on a flip chart sheet poster, on an overhead projector transparency or otherwise as appropriate.

Brainstorms

This can be a valuable way of stimulating creative free-thinking and is particularly useful when looking for a solution to a problem or in generating diverse ideas. Start with a question like "How can we..?" or "What do we know about ...?" and encourage the group to call out ideas as fast as you can write them up (perhaps use two scribes on separate boards if the brainstorm flows well). Make it clear that this is supposed to be an exploratory process, establish some ground-rules in advance for example:

A large quantity of ideas is desirable, so everyone should be encouraged to contribute at whatever level they feel comfortable.

- Quick snappy responses are more valuable at this stage than long, complex, drawn-out sentences.
- Ideas should be noted without comment, either positive or negative - no one should say "That wouldn't work because." or "That's the best idea we've heard yet" while the brainstorm is in progress as this might make people feel foolish about their contributions.
- Participants should 'piggyback' on each other's ideas if they set off a train of thought, 'logic circuits' should be disengaged, allowing for a freewheeling approach.

The ideas thus generated can then be used as a basis for either a further problem-solving task or a tutor exposition.

Syndicates

This is the term used to describe activities undertaken by groups of students working to a brief under their own direction. They can be asked to undertake internet or literature searches, debate an issue, explore a piece of text, prepare an argument, design an artefact or many other tasks. To achieve productively, they will need an explicit brief, appropriate resources and clear outcomes.

Specialist accommodation is not always necessary; syndicates can work in groups spread out in a large room, or, where facilities permit, go away and use other classrooms etc. If the task is substantial, the tutor may wish to move from group to group, or may be available on a 'help desk' at a central location. Outcomes may be in the form of assessed work from the group or produced at a plenary as described above.

Snowballing / Pyramiding

Start by giving students an individual task of a fairly simple nature such as listing features, noting questions, identifying problems, summarising the main points of their last lecture.

Then ask them to work in pairs on a slightly more complex task, such as prioritising issues or suggesting strategies. Thirdly, ask them to come together in larger groups, fours or sixes for example and undertake a task involving, perhaps, synthesis, assimilation or evaluation.

Ask them to draw up guidelines, perhaps, or produce an action plan or to assess the impact of a particular course of action. They can then feed back to the whole group if required. You may also wish to try 'reverse pyramiding'!

Fishbowls

Ask for a small group of up to half a dozen or so volunteers to sit in the middle of a larger circle comprising the rest of the group. Give them a task to undertake that involves discussion, with the group around the outside acting as observers. Make the task you give the inner circle sufficiently simple in the first instance to give them the confidence to get started. This can be enhanced once students have had practice and become more confident.

This method can be useful for managing students who are dominating a group, because it gives them permission to be the centre of attention for a period of time. After a suitable interval, you can ask others from the outer circle to replace them, thus giving the less vocal ones the opportunity for undisturbed "air-time". Fishbowls can also be useful ways of getting representatives from buzz groups to feed back to the whole group.

Some students will find it difficult to be the focus of all eyes and ears, so it may be necessary to avoid coercing anyone to take centre stage (although gentle prompting can be valuable). A 'tag wrestling' version can also be used, with those in the outer circle who want to join in gently tapping on the shoulder of someone in the middle they want to replace and taking over their chair and chance of talking.

Alternatively it can be very effective to give the observers in the outer group a specific task to ensure active listening. For example, ask them to determine the three key issues or conclusions identified by the inner group. It is then possible to swap the groups round and ask the new inner group to evaluate the conclusions identified by the first group. Fishbowls can work well with quite large groups too.

Cross Overs

Often we want to mix students up in a systematic way so they work in small groups of different compositions. You can use crossovers with large groups of students, but the following example shows how this method would work with twenty-seven students.

Prepare as many pieces of paper as you have students, marking on them A1,

A2, A3, B1, B2, B3 and so on (this combination is for creating triads - groups of three). If you want to create groups of four students add A4, B4 etc. (You can do this as a header on handouts.)

When you are ready to have the students go into smaller groups, get them to group themselves with students who have the same letter as themselves:

AAA, BBB, CCC and so on for one group exercise. For a second exercise, ask the students to work with people who have the same number as themselves: 111, 222, 333. A third exercise will have students in triads where none of the students can have a matching letter or number: e.g. A1, D2 F3.

This will allow you to get students to crossover within groups, so they work with different people on each task in a structured way.

This technique also cuts down on the need to get a lot of feedback from the groups because each individual will act as rapporteur on the outcomes of their previous task in the last configuration. As with snowballing or pyramids, you can make the task at each stage slightly more difficult and ask for a product from the final configuration if desired. Crossovers are useful in making sure everyone in the group is active and also help to mix students outside their normal friendship, ethnic or gender groups.

It takes a little forethought to get the numbers right for the cohort you are working with (for example, you can use initial configurations of four rather than three, so that in stage two they will work as fours rather than triads). If you have one person left over, you can just pair them with one other person and ask them to shadow that person wherever they go.

Large Group Teaching

There is a growing interest in the concepts of teacher-focused versus student-focused approach to teaching. The teacher-focused approach to teaching is concerned with the transmission of content to students and the teacher has the control and responsibility. The student-focused approach to teaching is more concerned with assisting student understanding and conceptual change. The focus is on what the students do and what are the learning outcomes follow from their activity (Cannon & Newble, 2002). While increasing student numbers and class sizes invariably mean teaching to large groups, this does not exclude the possibility of engaging students in active learning and encouraging a deeper approach to learning. Large group teaching, if carefully organized and implemented, can cause more active learning in students.

Ideas for Active Learning in Large Groups

With a large group setting, active learning can be encouraged in: a) Individual or pairs of students in a large lecture or b) Groups of students in a large group

Individual or pairs of students in a large lecture (Gibbs, 1992)

Silent reflection	Write down a question
Write down answer to a question	Solve a problem
Swap answers with person beside	Read some notes
Take a short test	In pairs, discuss an issue
Write a plan what you need to do	Summarise the main points

Groups of students in a large group

Buzz groups	Cross-overs
Pyramids	Brainstorm
One minute essays	Three minutes each way
Poster tours (following production of posters students tour around the displayed posters asking questions)	

Small Group Teaching

Defining Small Group Teaching

The term 'small group teaching', or 'small group learning' as it is often termed, means different things to different people. Some are familiar with the tutorial as being their experience of small group teaching. The tutorial is usually linked with a series of lectures and its role is to complement the lecture. Problem Based Learning Groups have very specific procedures in how the information is discussed, i.e. Brain-storming and reporting back on information, often completed in a 7 step procedure. Discussion groups are not linked necessarily with a series of lectures and large groups can break into small discussion groups.

There is no magical number that defines a group as a Small Group. A lecturer used to taking 400 in a lecture would define 50 as a small group. As there can be sub-groups within groups, it is hard to define small group. In a discussion, where participation is assessed some students may not speak up in a group that begins to get bigger than 10 participants and in addition tutors would find it hard to assess participation by individual students in groups with numbers greater than this.

Value of Small Groups

The lecture falls short when it comes to some of the generic and transferable skills required for employers, professional bodies, and in keeping with University strategic plans, e.g.,

- Analytic skills, Communication Skills, presentation skills (Griffiths, Partington)
- Competence in personal and interpersonal skills and being able to work with people is a key requisite to success in management' (Foreman & Johnson, (2001)
- Interpersonal, self-management, analytical (UCD Strategic Plan, Priority 3)

Ruddok (1978), Luker (1989), Griffiths, Houston & Lazenbatt (1996) stated that students enjoyed and benefited from small groups. The tutorial specifically has been noted for its value in

- Complementing knowledge in lectures.
- Expanding on the concepts considered in lectures.
- Encouraging student reflection
- Developing students' communication skills
- Encouraging active life-long learning

When engaging in tutorials or small group teaching after introductions and icebreakers the first step is to establish a set of guidelines that all participants agree to adhere to.

Ground rules might include:

- Pre-reading will be completed by all and quick check on what was read at the beginning of the session
- All in group must be punctual and must not leave early
- All criticism should be constructive
- Student seminar presentations must include overheads or hand-outs

How to encourage student participation

Use questions more effectively (e.g., use Blooms Taxonomy for eliciting higher level responses and avoid closed questions)

Learn how to develop good handling of quieter and dominant students

Be aware of Learning styles of students

Use discussion groups

Use task groups

Use problem based learning groups

Use role play and simulation

Twenty Things You Can Do To Help Students Learn In Small Group Situations
From Race & Brown (1993)

1. Get to know the names of the students in your groups. They will regard the tutorial as more important if they feel that you know them, and that you will notice if they are not present.
2. Tell them what to expect. Students new to universities may find the whole concept of a seminar or tutorial alien and frightening. Help them understand the difference in purpose between a lecture and a small group session.
3. Give them time to think. Students often require time to get their ideas together. Don't expect an immediate response, but allow them time to write down their ideas for a few moments before expecting them to begin a discussion.
4. Brief students in advance of the topics to be covered in forthcoming small group sessions. Give them something specific to prepare for each class, and spend some (but not all) of the time letting them share and discuss what they have prepared. Always have something up your sleeve for students to do or discuss during tutorials, for those occasions when none of the students brings questions or problems.
5. Give students activities to help them integrate the material in lectures with the rest of their experiences on the course. Help them to understand how to apply theoretical material to practical contexts.
6. Delegate activities. As the course progresses, brief individuals (or small groups) to prepare for forthcoming seminars, for example to give a 15-minute review of a topic, then open it up for discussion (with you as an expert witness only when needed).
7. Agree ground-rules for seminars. These can include things such as punctuality, contribution, preparation, and record-keeping. If, for example, students take turns preparing a short resume of what was covered in seminars, each member of the group gradually builds up a supplementary set of learning resource materials.
8. Use seminars for appropriate parts of assessed coursework. All kinds of tasks can be undertaken in small group sessions that can count towards a final assessment including assessed presentations, class tasks, work sheets and poster displays.
9. Involve them in assessing themselves and each other. The smaller groups involved in seminars can more easily participate in self-assessment and peer-assessment processes, giving students the chance to gain a detailed perspective of the sort of assessment criteria which may be involved in later exams.
10. Use small group sessions to build flexibility into the overall course. For example, give students choices from which to select the exact topics and formats of their forthcoming contributions. It can often help to invite an 'expert witness' from outside the course to contribute to particular seminars that students themselves have requested. Indeed the students themselves can be given the task of finding such a person.
11. Use other students as proctors. It can be useful to bring in, for example, third-year students to lead a series of seminars with first-year students. The more-experienced students can often explain things in a more understandable way than someone like

yourself who has probably 'known them for a long time'. Additionally, explaining things to less-experienced students is one of the best ways of deepening their own understanding of the topics they're explaining.

12. Experiment with ways of trying to keep everyone involved in seminar sessions. For example, asking students to write questions (or conclusions) on pieces of paper or overhead transparencies can overcome the problem of some students talking too much while others hardly talk at all.
13. Recognise that some students may be quite shy. Avoid being too heavy handed in your persuasion to participate in seminars, especially near the beginning of a course when they may be feeling insecure, and when they may take even slight embarrassment too seriously.
14. Be sensitive to gender and culture issues. For some students, it is really difficult to challenge the tutor or speak out in the presence of others. Use tact to help students take an active part in whatever way they feel most comfortable, for example, by asking them to write things down sometimes rather than speak aloud.
15. Come quickly to the rescue if particular students seem seriously uncomfortable as they contribute to a seminar. Get to know which ones are 'robust' enough to weather any difficulties, and which ones will appreciate your helpful intervention.
16. Get students talking to each other using non-threatening icebreakers. Build up your own stock of short icebreakers, so that you can regularly start off a seminar session in an informal 'fun' way.
17. Discuss with students the value they can derive from seminars, and particularly help them to see that the more they contribute to seminars, the more they will learn themselves.
18. Ensure that students don't undervalue seminars. Don't let them fall into the trap of thinking that because seminars are less formal than lectures, they are less important. In lectures, explain now and then that 'the important issues here will form the basis of your seminars in the next week or two'.
19. Allow students to participate in different ways. Vary the activities so those students can make their contributions in a discussion, in presentations, as an individual or as a member of a group.
20. Use seminars as an opportunity to present alternative views. Having used the lecture as an opportunity to describe one particular approach to the topic, use the seminar to help students perceive different perspectives on an issue.