

Thriving in Academe

REFLECTIONS ON HELPING STUDENTS LEARN

Thriving in Academe is a joint project of NEA and the Professional and Organizational Development Network www.podnetwork.org in Higher Education.

Getting Students to Talk (and Think)

If we want to help students learn, we need to hear what they are thinking. Small group work can not only give students time to think (and change their minds), it also lets us listen in.

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When I talk with most instructors about their teaching, I identify six formats at their disposal: lecturing, large group discussions, small group work, labs, clinical rounds, and performance. The first three are the most commonly used, but while lectures and large group discussions are fairly well understood, few instructors have seen effective small group work in action. In this article, I'll share a few of the many small group protocols.

Small group work done well can raise the energy level in a class, build student confidence, and allow more voices to be heard. It also gives students time to make changes in their thinking, which is important. By the time students get to college or university, they have formed beliefs and will defend them. To get good grades, they are willing to write down what we want on the exams—but that doesn't mean we changed their minds. Small group work doesn't necessarily change their minds either, but it does provide the chance to do so. It also gives us an opportunity to hear what they are thinking, which not only helps us find the gaps in their knowledge, but also can enrich the class and make visible the specialized knowledge that every new group of students brings to class.



Meet Dakin Burdick



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Using Small Group Discussion Protocols

Students Who Talk in Class, Think in Class

LARGE GROUP DISCUSSION IS OVER-USED

Large group discussion — where an instructor speaks with all the students at one time — is one of the most over-used and least effective teaching methods. Only a few students can speak in a large group discussion; the rest are often bored or distracted, not learning. The prepared students and the assertive students (even if they aren't pre-

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pared) will talk, while the others listen, take notes and (if you give homework *after* the class), strategize about what material they *really* have to cover. When you tell students to write something down because it is important, you emphasize memoriza-

tion rather than thought, and thereby discourage long-term learning. To make students more responsible for their learning, try using small group discussions.

Split the students into small groups of four to six people (two to three for a lecture hall). Give them a problem or a question to resolve, and give them about 10 minutes to work on it. In a classroom of 40 people, you

TALES FROM REAL LIFE > KEEPING STUDENTS THINKING

The class that convinced me to use small group discussion protocols was an U.S. history survey at Indiana University Purdue University at Indianapolis (IUPUI) at Columbus, now a regional campus in its own right. It was an evening class, three hours long, that met once a week. Some of

the students travelled for more than an hour to reach the class after a full day of work. My teaching style had previously been to lecture, occasionally successfully, and I knew there was no way we would get through a three-hour class that way. Luckily, I worked at Indiana University's Teaching Resource

Center (TRC) and had access to more than 20 years of articles and books on teaching. Drawing upon Frederick (1986), Bergquist & Phillips (1975), and the advice of the TRC Director, Joan Middendorf, I chose several small group discussion methods, including jigsaw discussions and role playing. During the

semester, I invented the evidence-based debate protocol included here. I also incorporated Just-in-Time Teaching (JiTT, developed at IUPUI). The combination worked. The students remained active throughout the class, and were often surprised to discover that class was over. I always had at least one discus-

sion protocol that we didn't get to. The students all talked, knew each other's names, trusted each other, and learned a lot. I've used small group work ever since, and it has always worked, even with classes that were initially apathetic and unresponsive.

will have about eight people talking at any one time. That's eight times the level of discussion. They will gain confidence and discover new viewpoints. At about 10 minutes, the buzz will die down (as they finish the problem) and then get even louder (as they start talking about their social lives). At that point, bring them together again, even if not all are finished. The group work has done its work by building energy and giving them a chance to think. Now have groups report out. Make them commit to a particular stance or understanding, so you can see their thinking and have a chance to clear up misconceptions or expand upon their understanding. Angelo & Cross (1993) is wonderful for this, as it has 50 different ways to get students to report out and even includes disciplinary examples.

VARY THE DISCUSSION METHOD

When instructors use small group work, they often use only the "round robin" protocol. Students get in a circle and talk. Since the students picked their own groups, there usually is a group full of "A" students and a group at the other end. And because they picked their friends, conversation will turn to their social life about five minutes faster than it would have with random groupings. If that's all you do, expect your students to get bored. Instead, pick about four or five different discussion protocols to use in a particular semester. Here are four examples:

CONCEPT TEST

The "concept test" or "ConcepTest," pioneered by Mazur (1997), can be used even in a lecture hall to ensure that students un-

derstand one concept before moving on to the next. First, check student understanding with a multiple-choice question. If most get it right, move on. If they are divided, have them turn to a neighbor and convince each other that they have the right answer. Then poll them again. Usually they will be more correct and you can move on. Occa-

"USING A COMBINATION OF LECTURE, SMALL GROUP WORK, AND LARGE GROUP DISCUSSION GIVES THE BEST CHANCE OF MAKING LONG-TERM CHANGES IN STUDENT BEHAVIOR."

sionally, as with any small group work, they come back with the incorrect answer, and then you should step in to clear up misconceptions and give more examples.

JIGSAW

In a "jigsaw" protocol, each student studies a different aspect of the topic. In class, each student informs his group about the studied aspect, and together they build a more complete understanding. Each student adds a piece to the completed puzzle.

TALKING-STICK

In the "talking-stick" protocol, only one person can speak at a time. A token (usu-

ally a pen in my class) is passed and each person speaks for a minute regarding the topic under discussion. This protocol is great for ensuring that all voices are heard, not just the assertive folks. It also puts the unprepared students on the spot, and embarrasses them in front of their peers. That can encourage them to prepare more fully next time, but embarrassment also can be avoided by just letting them know you will be using this protocol and they should be ready to participate. Interestingly, this protocol proved very helpful for a student with Tourette syndrome, who could not stop himself from blurting out—except when using the talking stick. If the linear nature of discussion that results from the talking-stick does not work for your content, try giving students three tokens each (playing cards, pennies, etc.) for the "expense account" protocol. Each time they speak, students put one of their chips in the middle of the table, and no one can retrieve them until *everyone* has used all their chips.

EVIDENCE-BASED DEBATE

This protocol adds a slight twist to the typical debate. The class is divided into an equal number of small groups. Those groups then count off, with the odd-numbered groups on the side arguing for the motion and the even-numbered groups arguing against the motion. The instructor tells the rules of the debate, which are:

- Each group gets to make one statement, and must support that statement with a page number in the text where the supporting evidence can be found.

■ BEST PRACTICES > PUTTING THE PUZZLE TOGETHER

Besides the regular "jigsaw," there's also a "double jigsaw," which can cover even more content. It takes time to prepare, so I generally use it just once or twice a semester. In the first lesson of my U.S. history survey, which covers pre-Columbian history from the dawn of time to 1492, I sometimes use it to give students a deeper understanding of a very

broad topic. I divide students into small groups and then hand out a different two to three-page reading to each student in that group. In one group, the students each read about a different archaeological find: Clovis Point, Spirit Cave Man, Kennewick Man, Cactus Hill, and Monte Verde. After reading the assignments, they teach the others in their group what they learned.

Other groups receive readings based around pre-Columbian agriculture, wildlife, architecture, languages, and other topics. After the initial jigsaw, I tell the students that they are now the classroom authorities on their particular topic. I have them count off and create new groups composed of one "authority" from each field. These second jigsaw groups then



teach each other what they have learned. In an online setting, this can be done with longer readings and a single huge jigsaw on the discussion forum. Either way, the students will have a better appreciation for the depth of the subject.