

Detailed steps for using the jigsaw technique

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- Step 1:** Divide the class into teams of three to five people.
- Step 2:** Devise two to five different team assignments. The number of different assignments depends on how many teams you want to have, because each team will receive a different assignment. You might give teams different reading, different data sets, samples, maps or problems, different issues for discussion, different field sites, and so on.
- Step 3:** With a small class, give a different assignment to each team. If there are four different assignments, there will be four teams. For a larger class, create several #1 teams, several #2 teams, and so on. Give all the #1 teams the same assignment, etc.
- Step 4:** Unless you plan to give teams time to work during class, ask each student to prepare individually before class. One effective way to prepare students is to give them focus questions to accompany the assignment and require that students prepare written responses to those questions. If you don't do something like this, some students won't come prepared to class. Rather than asking students to prepare ahead of time, you can set aside time during class for students to work in teams to do the reading/analysis (this works if the reading/analysis is short or involves equipment that is not accessible to students outside of class and *does* guarantee that all students do the reading or analyze the data). If there are several teams of the same number (e.g., four #1 teams), each team should meet separately, not as a large group.
- Step 5:** Give each team time in class to discuss the preparation and to develop a strategy for teaching the material to members of other teams. It is the responsibility of each team to make sure that all of its members understand the material thoroughly and are prepared to teach it. It helps to provide guidelines for what you mean by "teach".
- Step 7:** Don't assume that individual teams will head in the right direction without some guidance. You need to make sure that each team is prepared to teach a mixed group and that students will make the points that you want them to make. You or an assistant needs to check in with each team at least once during the discussion session to make sure that the team has not missed the boat. Be gentle and *listen* – nudge, don't pontificate. Resist the temptation to direct too strongly. As long as the team is on the right track and is prepared to address the main issue adequately, let them digress and explore. What strikes them as significant might open your eyes to something you have missed.
- Step 8:** When all teams are ready, reassemble the class in groups. There should be enough groups so that each group has one member from each team. Odd numbers may mean that a few groups have one extra member. In a class of 64 with four different assignments, for example, there might have been four team #1's each with four people, four team #2's each with four people, and so on. Each mixed group would have a #1, a #2, a #3, and a #4, for a total of four people. There would be 16 mixed groups in such a class.
- Step 9:** Each member of the group will then teach the rest of the group whatever was discussed or prepared by his/her team. The rationale, of course, is that a person only really learns something well when he/she has to teach it to someone else. Each person in the group is responsible for learning from the others in the group.
- Step 10:** Some type of individual assignment should result from the peer teaching effort, and students should have that assignment in mind as they work in their groups. A written assignment might involve comparing work done by a student's own team with that done by a different team. Alternatively, an assignment might ask a student to take all of the information presented by each team and use it to address a new issue.

- Step 11:** If the size of the class permits, evaluate students in the group setting. Sit in on a group session, and evaluate each person's ability to teach the rest of the group. Fill out the evaluation form during the session so that students can have feedback immediately after class. This is a very useful tool for helping students improve, particularly if you outline clearly what your criteria are for assigning each level in your grading scale. Knowing that they could be evaluated at any time gives students a real incentive to come prepared, and a carefully done evaluation gives them suggestions on how to improve. It helps if you and several student assistants can simultaneously evaluate several groups in order to evaluate as many students as possible during a single session, but you can evaluate one group at each session by yourself. In a larger class, you simply won't evaluate any individual as often. If you can work out a way to evaluate everyone at every session early in the course, however, you will see faster progress in students' abilities to teach one another.
- Step 12:** Have each group complete a task that requires the group to bring all of the pieces together to form the "picture". This might be a comparison of information from each team or it might be an entirely new task that requires information from each of the teams to solve. *This is a crucial aspect of the jigsaw.* Without a culminating group task, the exercise is little more than four mini-presentations by individual students without incentive for students to teach or learn from each other.
- Step 13:** Bring everyone back together toward the end of the class, and ask each group for its most important point. Make a list of main points on the board, going around a second time to each group if people still have points to make. Use the time to elaborate or to emphasize important issues. You can be sure this way that you drive home the most important points. This also serves to confirm for the students that they have done a good job in recognizing the important points. If you have student assistants, ask them for additional points. This is a way to give your student assistants credibility and also to have a "plant" in the audience in case (and it *does* happen) one of the important points is not raised by one of the groups. As an aside, keep careful track of those points, because, for one reason or another, students have missed them and will need different reading or direction the next time in order to catch the point, if it is indeed as important as you had originally thought.