**Making Cooperation and Learning Inescapable:**

**The Jigsaw Technique**

**Overview**

“The **jigsaw** **technique** is a method of organizing classroom activity that makes students dependent on each other to succeed. It breaks classes into groups and breaks assignments into pieces that the group assembles to complete the (jigsaw) puzzle.

**It was designed by social psychologist Elliot Aronson to help weaken racial cliques in forcibly integrated schools.**

1. The technique splits classes into mixed groups to work on small problems that the group collates into a final outcome. For example, an in-class assignment is divided into topics.
2. Students are then split into groups with one member assigned to each topic. Working individually, each student learns about his or her topic and presents it to their group.
3. Next, students gather into groups divided by topic. Each member presents again to the topic group. In same-topic groups, students reconcile points of view and synthesize information. They create a final report.
4. Finally, the original groups reconvene and listen to presentations from each member. The final presentations provide all group members with an understanding of their own material, as well as the findings that have emerged from topic-specific group discussion.

**History**

In the late 1950s, America was going through desegregation of public schools. In 1954, the [Brown v. Board of Education](https://en.wikipedia.org/wiki/Brown_v._Board_of_Education) decision of the [Supreme Court of the United States](https://en.wikipedia.org/wiki/Supreme_Court_of_the_United_States) created a legal requirement for integration of public schools by ruling that separating schools made them inherently unequal. Actual integration was a painful process, taking years.

**Schools were plagued with fights, discrimination, and hate crimes. White supremacist groups and hateful white students terrorized new students. This prevented students from feeling safe in their schools and harmed all their learning abilities.**

**Students often could hardly sit in the same room together without incident, much less work together. This created a problem for teachers, students, parents, communities, and the country alike, as an entire generation of students were distracted from learning by rampant hatred and discrimination.**

It was at this time that psychologists were pulled in to advise schools on what to do to correct this problem. In 1971, Dr. [Elliot Aronson](https://en.wikipedia.org/wiki/Elliot_Aronson) was hired to advise an [Austin, Texas](https://en.wikipedia.org/wiki/Austin%2C_Texas) school district on how to defuse the problems of hostile classrooms and distrust between the students.

Aronson was a psychologist at the [University of Texas at Austin](https://en.wikipedia.org/wiki/University_of_Texas_at_Austin) at the time, and took a psychological approach to help fix the problems in the classrooms. Competition among students had become extremely high. It was quickly realized that the competitive nature of the classroom encouraged students to taunt each other and discriminate against those different than them, so that they might vault themselves higher in status.

In order to counter this problem, **students were placed in diversified groups so that they would be required to work together and reduce the competitive atmosphere. Students were having difficulty adjusting to the mixing of ethnicity in the classroom.** Aronsoncreated an atmosphere for increased collaboration and reduction of the resistance to work with one another.

**Aronson created assignments that made every member of the group equally important.**

1. The students had to pay attention and obtain much information from other group members.
2. This allows for each member of the group to add a small piece of the larger picture so that they are all important to the group.
3. This teaches the students to rely on each other and reduces their competitive attitudes toward each other because they need everyone in their group to do well because their grade depends on the other students.

**Research findings**

Students in jigsaw classrooms showed a decrease in prejudice and stereotyping, liked in-group and out-group members more, showed higher levels of self-esteem, performed better on standardized exams, liked school more, reduced absenteeism, and mixed with students of other races in areas other than the classroom compared to students in traditional classrooms.”

Source: Wikipedia [liberally copied, reformatted, and emphases added by RNewton]

<https://en.wikipedia.org/w/index.php?title=Jigsaw_(teaching_technique)&oldid=815888720>

**How to Implement the Jigsaw Technique**

Whenever there is material you wish to present to a class or you wish students to read, the jigsaw method is an alternative to lecture and individual reading.

The **task** for students is to learn all the assigned material.

The **cooperative goal** is for each member to ensure that everyone in their group learns all the assigned material.

1. The instructor assigns students to cooperative groups.
2. Then he or she divides the material into section like a jigsaw puzzle so that each group member has a section of the material needed to complete the assignment.
3. Each member is to learn one unique section of the material and then teach it to the other members of the group.
4. The group then integrates the various presentations.

For example, in studying the life of Sojourner Truth (an African American abolitionist and women’s rights activist who was born 1797 and died in 1883), the instructor gives one student material on Truth’s childhood, another material on her middle life, and another material on her final years of life. Group members cannot learn her total life unless all members teach their sections.

Steps to implement:

1. **Cooperative Groups**: Assign students to cooperative groups. Distribute a set of materials to each group so that each person gets one section of the materials. The set needs to have equal sections for the number of the group members. Number each section 1, 2, 3 and so on.
2. **Preparation Pairs.** Ask students to form a preparation pair with a member of another group who has the same section of the material: a pair of 1s, a pair of 2s, and a pair of 3s, etc.

Students then have two tasks:

-Learn and become an expert on their section of the lesson materials.

-Plan how to teach their section of the material to their cooperative group.

Students are then asked to read their part of the material together, using the pair reading procedure of a) both students reading silently through each paragraph (or “chunk”), b) one student summarizes its meaning while the other student checks the summary for accuracy, and c) the students reverse roles after each paragraph.

In doing so, pair members should list major points they wish to teach and prepare an example in context. Then they create a visual aid to help them teach the content. Finally, the pair creates an activity or memory technique (perhaps a mnemonic) so that their cooperative group actively learns the material and is not passive. The goal is for the preparation pair to create a single teaching plan and duplicate the materials for each to use in their cooperative group.

**Cooperative Group Teaching and Learning**

After the various pairs (1s, 2s, 3s, etc.) complete their section preparation, they return to their original cooperative group and

1. Teach their section to the other group members.
2. Learn the material taught by other members.

The cooperative goal is to ensure that members master all sections of the assigned material.

**Monitoring**

While the students work, the instructor systematically moves from group to group and assists students in following the procedures effectively.

**Evaluation**

The instructor then assesses students’ degree of mastery of all the material by giving each an individual test on all of the material. To ensure interdependence, extra points may be given for groups in which each student achieves a certain level of mastery.

Source: *Active Learning: Cooperation in the College Classroom,* 3rd Edition (2006­), by David Johnson, Roger Johnson, and Karl Smith [liberally copied, reformatted, and emphases added by RNewton]