

## Jigsaw Collaborative Discussion Method

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| <p><b>Overview</b></p>       | <p>This page introduces the Jigsaw method and describes how to use this method in classroom activities. The Jigsaw was first developed as a way to combat racial bias among elementary school students. In the early 1970s, social psychologist Elliot Aronson developed this method after being asked to help diffuse tension in classrooms where black, Hispanic, and white students had recently been integrated. Aronson and his team observed that the students were learning in a competitive environment. With his research team, he recommended creating a cooperative environment where students had to depend on each other to learn assigned material well. In just a few weeks, students initially hostile to one another were, instead, encouraging each other to succeed and learn the material well. Racial tensions were largely diffused, and students learned the assigned material with a higher level of mastery. <a href="#">Read a letter</a> from one of the students in this first Jigsaw classroom.</p> <p>Research has shown this method is useful for learners of all ages. The primary strategy is to create assignments and activities that allow students to cultivate topic-specific expertise and then teach the material they have learned to other students in the class. Student groups are then asked to draw on everyone’s expertise to complete a task together or prepare for an individual exam.</p> |
| <p><b>Goals</b></p>          | <ol style="list-style-type: none"> <li>1) To encourage students to cultivate confidence in themselves and each other using collaborative learning.</li> <li>2) To mitigate stereotyping and other kinds of bias that create negative learning environments for students across all social identities.</li> </ol>   |
| <p><b>Implementation</b></p> | <p>Abigail Stewart, Distinguished Professor of Psychology and Women’s Studies at the University of Michigan, Joyce Yen, Director of the ADVANCE Center for Institutional Change at the University of Washington, and Sapna Cheryan, Associate Professor of Psychology at the University of Washington, developed content for using the Jigsaw method in their classes. Their teaching materials are included below and may be adapted for use in your classroom:</p> <ul style="list-style-type: none"> <li>• <a href="#">PowerPoint</a> that introduces and provides instruction for a Jigsaw assignment</li> <li>• <a href="#">Worksheet</a> for “expert” groups</li> <li>• <a href="#">Worksheet</a> for “home” groups</li> </ul>   |

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| <p><b>Challenges</b></p>                      | <p>Planning groups can take quite a bit of time and remember that you will need to create two sets of groups. In the “expert” group, students learn the same body of information or skill together. They are then asked to join their “home” or “jigsaw” group to teach the material they have learned. For expert groups, try to avoid assigning content or tasks that are stereotypical of students’ social identities. For example, avoid creating an all-male group tasked with learning a mechanical lab skill or an all-female group tasked with learning a communication skill.</p>   |
| <p><b>Integration with Course Content</b></p> | <p>In its simplest version, an instructor can form groups A, B, and C and assign each group a different reading or lab skill to learn. These are called “expert” groups. Once each student group has mastered the required content or skill, the instructor then forms new groups with one student from A, B, and C in each group. These are called “home” or “jigsaw” groups. Those students are now “experts” in the material they learned in their original groups, and they can teach students in the home group what they have learned.</p> <p>This approach can work well in STEM classes where students must work in lab or project teams, and it can be applied in other classes where students read assigned content and then teach that content to one another in small groups or class presentations.</p>                   |
| <p><b>Additional Resources</b></p>            | <p><a href="#">“The Jigsaw Classroom”</a> – provides a history of this method and resources for implementation.</p> <p><a href="#">“4 Things You Don’t Know About the Jigsaw Method”</a> – provides advice for modifying Jigsaw and troubleshooting come problems.</p>   |
| <p><b>Related Articles</b></p>                | <p>Aronson, E., N. Blaney, et al. (1978). <i>The Jigsaw Classroom</i>. Beverly Hills, CA: Sage.</p> <p>Baviskar, S.N. (2013). “Implementing Jigsaw Technique to Enhance Learning in an Upper-Level Cell and Molecular Biology Course.” <i>Exemplary College Science Teaching</i>. 107-118.</p> <p>Colosi, J.C., Zales, C.R. (1998). “Jigsaw Cooperative Learning Improves Biology Lab Courses.” <i>Bioscience</i>. 48(2), 118-124. DOI: <a href="https://doi.org/10.2307/1313137">10.2307/1313137</a></p> <p>Nolan, J. M., Hanley, B. G., DiVietri, T. P., &amp; Harvey, N. A. (2018). She who teaches learns: Performance benefits of a jigsaw activity in a college classroom. <i>Scholarship of Teaching and Learning in Psychology</i>, 4(2), 93-104. DOI: <a href="https://doi.org/10.1037/stl0000110">10.1037/stl0000110</a></p> |