THE JIGSAW CLASSROOM

The Jigsaw Classroom is a cooperative learning technique that reduces racial conflict among school children, promotes better learning, improves student motivation, and increases enjoyment of the learning experience.

OVERVIEW

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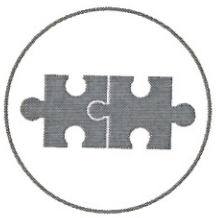
The jigsaw classroom has a four-decade track record of successfully reducing racial conflict and increasing positive educational outcomes such as improved test performance, reduced absenteeism, and greater liking for school.



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If each student's part is essential, then each student is essential; and that is precisely what makes this strategy so effective.

LEARN MORE

(overview)

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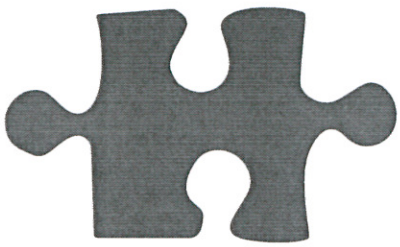

STEP ONE

Divide students into 5- or 6-person jigsaw groups.

The groups should be diverse in terms of gender, ethnicity, race, and ability.

STEP TWO

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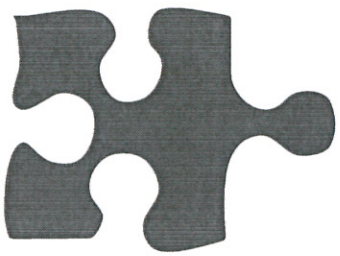

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Divide the day's lesson into 5-6 segments.

For example, if you want history students to learn about Eleanor Roosevelt, you might divide a short biography of her into stand-alone segments on: (1) Her childhood, (2) Her family life with Franklin and their children, (3) Her life after Franklin contracted polio, (4) Her work in the White House as First Lady, and (5) Her life and work after Franklin's death.

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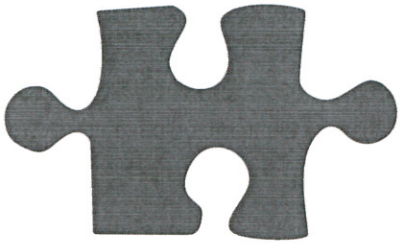


STEP FIVE

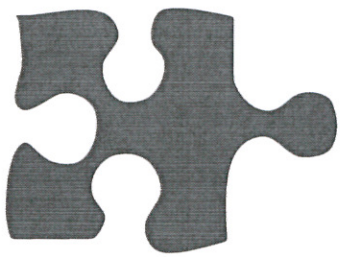
Give students time to read over their segment at least twice and become familiar with it.

There is no need for them to memorize it.

STEP SIX

Form temporary "expert groups" by having one student from each jigsaw group join other students assigned to the same segment.

Give students in these expert groups time to discuss the main points of their segment and to rehearse the presentations they will make to their jigsaw group.



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Bring the students back into their jigsaw groups.

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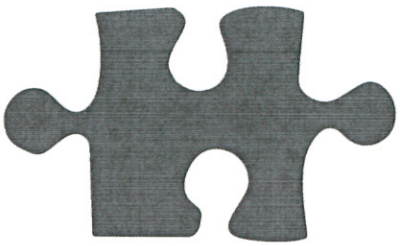
Ask each student to present her or his segment to the group.

Encourage others in the group to ask questions for clarification.



STEP NINE

Float from group to group, observing the process.

If any group is having trouble (e.g., a member is dominating or disruptive), make an appropriate intervention. Eventually, it's best for the group leader to handle this task. Leaders can be trained by whispering an instruction on how to intervene, until the leader gets the hang of it.

STEP TEN

At the end of the session, give a quiz on the material.

Students quickly come to realize that these sessions are not just fun and games but really count.

TIPS

Compared with traditional teaching methods, The jigsaw classroom has several advantages:

- Most teachers find jigsaw easy to learn
- Most teachers enjoy working with it
- It can be used with other teaching strategies
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MORE ABOUT IMPLEMENTATION (tips)

ABOUT ELLIOT ARONSON

Elliot Aronson is currently Professor Emeritus at the University of California in Santa Cruz. He has long-standing research interests in social influence and attitude change, cognitive dissonance, research methodology, and interpersonal attraction. Professor Aronson's experiments are aimed both at testing theory and at improving the human condition by influencing people to change dysfunctional attitudes and behaviors.

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Within a few weeks, long-standing suspicion, fear, and distrust between groups produced an atmosphere of turmoil and hostility. Fist-

OVERVIEW

A jigsaw classroom is not a loose, "anything goes" situation. It is highly structured. Interdependence is required. It is the element of "required" interdependence among students which makes this a unique learning method, and it is this interdependence that encourages the students to take an active part in their learning. In becoming a teacher of sorts, each student becomes a valuable resource for the others.

Learning from each other gradually diminishes the need to try to out-perform each other because one student's learning enhances the performance of the other students instead of inhibiting it, as is usually the case in most competitive, teacher-oriented classrooms.

Within this cooperative paradigm the teacher learns to be a facilitating resource person, and shares in the learning and teacher process with the students instead of being the sole resource. Rather than lecturing to the students, the teacher facilitates their mutual learning, in that each student is required to be an active participant and to be responsible for what he learns.

HOW IT WORKS

The students in a history class, for example, are divided into small groups of five or six students each. Suppose their task is to learn about World War II. In one jigsaw group, Sarah is responsible for researching Hitler's rise to power in pre-war Germany. Another member of the group, Lisa, is assigned to cover concentration camps; Michael is assigned Britain's role in the war; Melody is to research the contribution of the Soviet Union; Pedro will handle Japan's entry into the war; Clara will read about the development of the atom bomb.

Research Hitler's Rise to Power

Research Concentration Camps

Research Britain's Role in the War

Research Soviet Union's Contribution

Research Japan's Entry into the War

Research Development of the Atomic Bomb

Eventually each student will come back to her or his jigsaw group and will try to present a well-organized report to the group. The situation is specifically structured so that the only access any member has to the other five assignments is by listening closely to the report of the person reciting. Thus, if Pedro doesn't like Michael, or if he thinks Sarah is a nerd and tunes her out or makes fun of her, he cannot possibly do well on the test that follows.

To increase the chances that each report will be accurate, the students doing the research do not immediately take it back to their jigsaw group. Instead, they meet first with students who have the identical assignment (one from each jigsaw group). For example, students assigned to the atom bomb topic meet as a team of specialists, gathering information, becoming experts on their topic, and rehearsing their presentations. We call this the "expert" group. It is particularly useful for students who might have initial difficulty learning or organizing their part of the assignment, for it allows them to hear and rehearse with other "experts."

Once each presenter is up to speed, the jigsaw groups reconvene in their initial heterogeneous configuration. The atom bomb expert in each group teaches the other group members about the development of the atom bomb. Each student in each group educates the whole group about her or his specialty. Students are then tested on what they have learned about World War II from their fellow group member.

THE BENEFIT

First and foremost, it is a remarkably efficient way to learn the material. But even more important, the jigsaw process encourages listening, engagement, and empathy by giving each member of the group an essential part to play in the academic activity. Group members must work together as a team to accomplish a common goal; each person depends on all the others. No student can succeed completely unless everyone works well together as a team. This "cooperation by design" facilitates interaction among all students in the class, leading them to value each other as contributors to their common task.

JIGSAW BASICS (/pdf/JigsawBasics.pdf)

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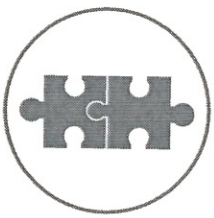

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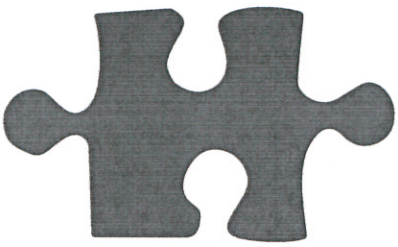

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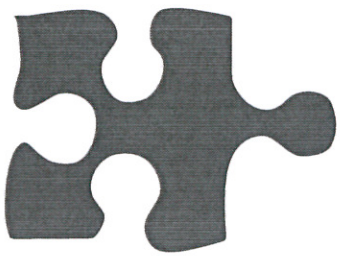

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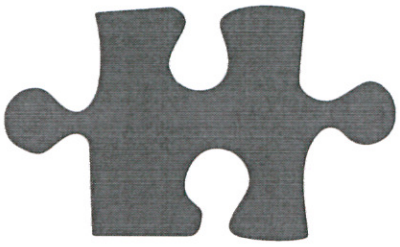

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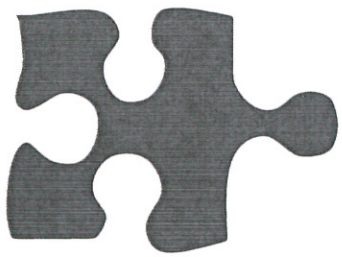

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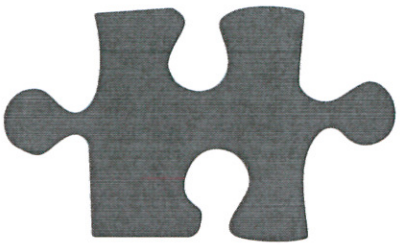

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TIPS

Is the jigsaw method too good to be true? Well, yes and no. It would be misleading to suggest that the jigsaw sessions always go smoothly.

Occasionally, a dominant student will talk too much or try to control the group. How can we prevent that? Some students are poor readers or slow thinkers and have trouble creating a good report for their group. How can we help them? At the other end of the talent continuum, some students are so gifted that they get bored working with slower students. Is the jigsaw technique effective with them? In some cases, students may never have experienced cooperative learning before. Will the jigsaw technique work with older students who have been trained to compete with one another?

All of these problems are real but not fatal.

PROBLEM AREAS

THE DOMINANT STUDENT

Many jigsaw teachers find it useful to appoint one of the students to be the discussion leader for each session, on a rotating basis. It is the leader's job to call on students in a fair manner and try to spread participation evenly. In addition, students quickly realize that the group runs more effectively if each student is allowed to present her or his material before question and comments are taken. Thus, the self interest of the group eventually reduces the problem of dominance.

THE SLOW STUDENT

Teachers must make sure that students with poor study skills do not present an inferior report to the jigsaw group. If this were to happen, the jigsaw experience might backfire (the situation would be akin to the untalented baseball player dropping a routine fly ball with the bases loaded, earning the wrath of teammates). To deal with this problem, the jigsaw technique relies on "expert" groups. Before presenting a report to their jigsaw groups, each student enters an expert group consisting of other students who have prepared a report on the same topic. In the expert group, students have a chance to discuss their report and modify it based on the suggestions of other members of their expert group. This system works very well. In the early stages, teachers may want to monitor the expert groups carefully, just to make sure that each student ends with an accurate report to bring to her or his jigsaw group. Most teachers find that once the expert groups get the hang of it, close monitoring becomes unnecessary.

BRIGHT STUDENTS BECOMING BORED

Boredom can be a problem in any classroom, regardless of the learning technique being used. Research suggests, however, that there is less boredom in jigsaw classrooms than in traditional classrooms. Youngsters in jigsaw classes report liking school better, and this is true for the bright students as well as the slower students. After all, being in the position of a teacher can be an exciting change of pace for all students. If bright students are encouraged to develop the mind set of "teacher," the learning experience can be transformed from a boring task into an exciting challenge. Not only does such a challenge produce psychological benefits, but the learning is frequently more thorough.

STUDENTS WHO HAVE BEEN TRAINED TO COMPETE

Research suggests that jigsaw has its strongest effect if introduced in elementary school. When children have been exposed to jigsaw in their early years, little more than a "booster shot" (one hour per day) of jigsaw in middle school and high school is required to maintain the benefits of cooperative learning. But what if jigsaw has not been used in elementary school? Admittedly, it is an uphill battle to introduce cooperative learning to 16-year olds who have never before experienced it. Old habits are not easy to break. But they can be broken, and it is never too late to begin. Experience has shown that although it generally takes a bit longer, most high school students participating in jigsaw for the first time display a remarkable ability to benefit from the cooperative structure.

IN CONCLUSION

Some teachers may feel that they have already tried a cooperative learning approach because they have occasionally placed their students in small groups, instructing them to cooperate. Yet cooperative learning requires more than seating students around a table and telling them to share, work together, and be nice to one another. Such loose, unstructured situations do not contain the crucial elements and safeguards that make the jigsaw and other structured cooperative strategies work so well.

For more information, please see Jigsaw Basics (https://www.jigsaw.org/pdf/JigsawBasics.pdf).