

Jigsaw: An Experiment in Cooperation

Team learning is a powerful learning device that is often neglected because many students know cooperation only as cheating. Joint problem solving requires legitimate giving and receiving of help. It takes about 45 minutes.

Preparation

Before class, prepare a set of squares and an instruction sheet for each five students. A set consists of five envelopes containing pieces of stiff paper cut into pattern that will form five 6" by 6" squares, as shown in the diagram. Several individual combinations will be possibly but only one total combination. Cut each square into the parts a through j and lightly pencil the letters. Then mark the envelopes A through E and distribute the pieces thus: Envelope A, pieces i, h, e; B, pieces a, a, a, c; C, pieces a, j; D, pieces d, f; and E, pieces g, b, f, c.

Erase the small letters from the pieces and write instead the envelope letter A through E, so that the pieces can be easily returned for reuse.

Activity

Divide the class into groups of five and seat each group at a table equipped with a set of envelopes and an instruction sheet. Ask that the envelopes be opened only on signal. Provide up to 20 minutes for groups to complete the puzzle. Your goal is for **everyone** at the table to have a completed 6 inch square

Begin the exercise by asking what cooperation means. List on the board the behaviors required in cooperation. For example: Everyone has to understand the problem. Everyone needs to believe that he can help. Instructions have to be clear. Everyone needs to think of the other person as well as himself.

Describe the experiment as a puzzle that requires cooperation. Read the instructions aloud, point out that each table has a reference copy of them, and then give the signal to open the envelopes.

The instructions are as follows: Each person should have an envelope containing pieces for forming squares. At the signal, the task of the group is to form five squares and all the squares are of the same size.

In summarizing the discussions, the teacher may wish to review behaviors listed at the beginning. He may also want to ask whether the game relates to the way the class works from day to day.

Rules

- You may give pieces to someone at your table but you may not ask for any pieces or signal that you want one.
- No member may speak.
- No member may ask for a card or in any way signal that he wants one.
- Members may give cards to others.

Debrief:

When all or most of the groups have finished, call time and discuss the experience. Ask such questions as:

- How did you feel when someone held a piece and did not see the solution?
- What was your reaction when someone finished her/his square and then sat back without seeing whether her/his solution prevented others from solving the problem?
- What were your feelings if you finished your square and then began to realize that you would have to break it up and give away a piece?
- How did you feel about the person who was slow at seeing the solution?
- If you were that person, how did you feel?
- Was there a climate that helped or hindered?
- Other observations, comments, learning?

This is an adaptation from *Handbook of Staff Development and Human Relations Training: Materials for use in Africa* by D. Nyles, J.P. Mitchell and A. Stout.