

# Constructive Controversy Research

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## Cooperative Jigsaw

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## Cooperative Jigsaw Objectives

- Participants will be able to list and describe constructive controversy research outcome
- Participants will be able to elaborate on process of controversy
- Participants will identify features to implement in their own rationale statements

### **Jigsaw Procedure (Adapted from Johnson, Johnson & Smith, 1998)**

When you have information you need to communicate to students, an alternative to lecturing is a procedure for structuring cooperative learning groups called jigsaw (Aronson, 1978).

**Task:** Think of a reading assignment you will give in the near future. Divide the assignment into multiple (2- 4) parts. Plan how you will use the jigsaw procedure.

**Procedure:** Positive Interdependence is structured in the jigsaw method through creating resource interdependence. The steps for structuring a "jigsaw" lesson are:

1. **Cooperative Groups:** Distribute a set of instructions and materials to each group. The set needs to be divisible into the number of members of the group (2, 3, or 4 parts). Give each member one part of the set of materials.
2. **Preparation Pairs:** Assign students the cooperative task of meeting with someone else in the class who is a member of another learning group and who has the same section of the material to complete two tasks:
  - a. Learning and becoming an expert on their material.
  - b. Planning how to teach the material to the other members of their group.
3. **Practice Pairs:** Assign students the cooperative task of meeting with someone else in the class who is a member of another learning group and who has learned the same material and share ideas as to how the material may best be taught. These "practice pairs" review what each plans to teach their group and how. The best ideas of both are incorporated into each presentation.
4. **Cooperative Group:** Assign students the cooperative tasks of:
  - a. Teaching their area of expertise to the other group members.
  - b. Learning the material being taught by the other members.
5. **Evaluation:** Assess students' degree of mastery of all the material. Recognize those groups where all members reach the preset criterion of excellence.

## **JIGSAW SCHEDULE**

**COOPERATIVE GROUPS**

**PREPARATION PAIRS**

**CONSULTING/SHARING PAIRS**

**TEACHING/LEARNING IN COOPERATIVE  
GROUPS**

**WHOLE CLASS REVIEW**

# Theory-Research Jigsaw

- Outcomes • A:3 – A:10
- Process 1: Steps 1, 2, 3 • A:10 – A:17
- Process 2: Steps 4, 5 • A:18 – A:24

(c) Johnson & Johnson

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## Preparation Pairs

### TASKS:

- a. Master Assigned Material – Skim Article/Chapter
- b. Plan How to Teach It To Group

### PREPARE TO TEACH:

- a. List Major Points You Wish to Teach – 3 – 5 points
- b. List Practical Advice Related to Major Points
- c. Prepare Visual Aids/Graphical Organizers
- d. Prepare Procedure to Make Learners Active, Not Passive

COOPERATIVE: One Teaching Plan From The Two or Three Of You, Both Of You Must Be Ready to Teach

Preparation - ~ 10 min

Teach & Learn - ~ 15 min

Outcomes ~ 5 min

Process 1 ~ 5 min

Process 2 ~ 5 min

### Processing

Please complete the sentence:

One thing you did that helped me  
learn was . . .

## Consulting/Practice Pairs

### TASKS:

1. Find Someone Who Prepared To Teach the Same Section
2. Prepare Your Teaching Plan
3. Listen Carefully To Other's Teaching Plan
4. Incorporate Other's Best Ideas Into Your Plan

**COOPERATIVE:** Ensure Both of You Are Ready to Teach

### Teach and Learn Group

**TASK:** Learn ALL the Material (All three sections)

#### COOPERATIVE:

Goal: Ensure All Group Members Understand All Sections of Material

Resource: Each Member Has One Part

Roles: Teach, Learn

**EXPECTED CRITERIA FOR SUCCESS:** Everyone learns and teaches an area of expertise, Everyone learns others' area of expertise, Everyone summarizes and synthesizes

#### INDIVIDUAL ACCOUNTABILITY:

Professor Monitors Participation of All Learners

Individual Oral Exam

All Take Test Individually

**EXPECTED BEHAVIORS:** Good Teaching, Excellent Learning, Summarizing, Synthesizing

**INTERGROUP COOPERATION:** Whenever it is helpful, check procedures, answers, and strategies with another group.

### Jigsaw -- Role of Listening Members

Clarify material by asking questions

Suggest creative ways to learn ideas and facts

Relate information to other strategies and elaborate

Present practical applications of information

Keep track of time

Appropriate Humor

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## Jigsaw Processing

Things We Liked About It

Traps to Watch Out For

Things We Liked About It	Traps to Watch Out For

**Cooperative Learning** is instruction that involves people working in teams to accomplish a common goal, under conditions that involve both *positive interdependence* (all members must cooperate to complete the task) and *individual and group accountability* (each member is accountable for the complete final outcome).

### Key Concepts

- Positive Interdependence
- Individual and Group Accountability
- Face-to-Face Promotive Interaction
- Teamwork Skills
- Group Processing

# Cooperative Learning

## Positive Interdependence

### Goal Interdependence (essential)

1. All members show mastery
2. All members improve
3. Add group member scores to get an overall group score
4. One product from group that all helped with and can explain

### Role (Duty) Interdependence

Assign each member a role and rotate them

### Resource Interdependence

1. Limit resources (one set of materials)
2. Jigsaw materials
3. Separate contributions

### Task Interdependence

1. Factory-line
2. Chain Reaction

### Outside Challenge Interdependence

1. Intergroup competition
2. Other class competition

### Identity Interdependence

Mutual identity (name, motto, etc.)

### Environmental Interdependence

1. Designated classroom space
2. Group has special meeting place

### Fantasy Interdependence

Hypothetical interdependence in situation ("You are a scientific/literary prize team, lost on the moon, etc.")

### Reward/Celebration Interdependence

1. Celebrate joint success
2. Bonus points (use with care)
3. Single group grade (when fair to all)

## Individual Accountability

### Ways to ensure no slackers:

- Keep group size small (2-4)
- Assign roles
- Randomly ask one member of the group to explain the learning
- Have students do work before group meets
- Have students use their group learning to do an individual task afterward
- Everyone signs: "I participated, I agree, and I can explain"
- Observe & record individual contributions

### Ways to ensure that all members learn:

- Practice tests
- Edit each other's work and sign agreement
- Randomly check one paper from each group
- Give individual tests
- Assign the role of **checker** who has each group member explain out loud
- Simultaneous explaining: each student explains their learning to a new partner

## Face-to-Face Interaction

### Structure:

- Time for groups to meet
- Group members close together
- Small group size of two or three
- Frequent oral rehearsal
- Strong positive interdependence
- Commitment to each other's learning
- Positive social skill use
- Celebrations for encouragement, effort, help, and success!

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<http://www.ce.umn.edu/~smith/docs/Smith-CL%20Handout%2008.pdf>

## Professor's Role in Formal Cooperative Learning

1. Specifying Objectives
2. Making Decisions
3. Explaining Task, Positive Interdependence, and Individual Accountability
4. Monitoring and Intervening to Teach Skills
5. Evaluating Students' Achievement and Group Effectiveness



### Cooperative Lesson Planning Form

Grade Level: \_\_\_\_\_ Subject Area: \_\_\_\_\_ Date: \_\_\_\_\_

Lesson: \_\_\_\_\_

#### Objectives

Academic: \_\_\_\_\_

Teamwork Skills: \_\_\_\_\_

#### Preinstructional Decisions

Group Size: \_\_\_\_\_ Method Of Assigning Students: \_\_\_\_\_

Roles: \_\_\_\_\_

Room Arrangement: \_\_\_\_\_

Materials: \_\_\_\_\_

- ◊ One Copy Per Group                      ◊ One Copy Per Person
- ◊ Jigsaw    ◊ Tournament
- ◊ Other: \_\_\_\_\_

#### Explain Task And Cooperative Goal Structure

1. Task: \_\_\_\_\_  
\_\_\_\_\_
2. Criteria For Success: \_\_\_\_\_  
\_\_\_\_\_
3. Positive Interdependence: \_\_\_\_\_  
\_\_\_\_\_
4. Individual Accountability: \_\_\_\_\_
5. Intergroup Cooperation: \_\_\_\_\_
6. Expected Behaviors: \_\_\_\_\_

#### Monitoring And Intervening

1. Observation Procedure: \_\_\_\_\_ Formal \_\_\_\_\_ Informal
2. Observation By: \_\_\_\_\_ Teacher \_\_\_\_\_ Students \_\_\_\_\_ Visitors
3. Intervening For Task Assistance: \_\_\_\_\_  
\_\_\_\_\_
4. Intervening For Teamwork Assistance: \_\_\_\_\_  
\_\_\_\_\_
5. Other: \_\_\_\_\_

#### Evaluating And Processing

1. Assessment Of Members' Individual Learning: \_\_\_\_\_  
\_\_\_\_\_
2. Assessment Of Group Productivity: \_\_\_\_\_  
\_\_\_\_\_
3. Small Group Processing: \_\_\_\_\_  
\_\_\_\_\_
4. Whole Class Processing: \_\_\_\_\_  
\_\_\_\_\_
5. Charts And Graphs Used: \_\_\_\_\_  
\_\_\_\_\_
6. Positive Feedback To Each Student: \_\_\_\_\_  
\_\_\_\_\_
7. Goal Setting For Improvement: \_\_\_\_\_  
\_\_\_\_\_
8. Celebration: \_\_\_\_\_  
\_\_\_\_\_
9. Other: \_\_\_\_\_