

# JIGSAW

Individual Accountability for Cooperative Learning



## Summary

The jigsaw model is a cooperative learning method. Instead of providing students with all the materials to study independently, students are assigned to be in two types of teams. In the first, each individual is given a piece of information they are responsible for, which they will teach to the rest of their team members. In the second team, they meet with others who have the same piece of information as they do. This group's purpose is to become experts in the content and concepts and make a plan to teach what they have learned to their original group. To reach all of the lesson's objectives, students are forced to fit their pieces together and synthesize the information from the other team members. In the end, the puzzle cannot be completed unless each member teaches their piece effectively.

Prep: 30 - 60 minutes

Class Time: 45 - 120 minutes

### Focus



Concept Development

### Learning Level



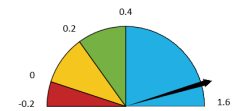
Surface to Deep and into Transfer Learning

### Interaction



Individual & Cooperative Processing of Content

### Learning Impact



1.2 Effect Size

## Start Strong

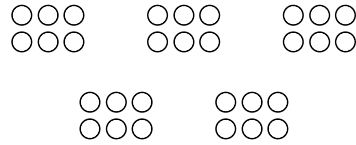
Many students may not be as familiar with cooperative learning, so it is important to introduce the jigsaw method and explain that they will be responsible to teach others for a piece of a larger concept. The choice of content also plays a key role in the effectiveness of this method. It is helpful to start with a concept that can be broken into several pieces. Begin planning by creating a concept map to identify pieces they need to learn. Ultimately, when you devote the time to start strong, you're setting the foundation for a more impactful learning experience in the end.

## Why it Matters

Many studies have shown that when implemented correctly, cooperative learning improves information acquisition and retention, higher level thinking skills, interpersonal and communication skills, and self-confidence. That is to say, when students work together to make sense of what they are learning, it is more likely to stick and they are more likely to use what they learn.

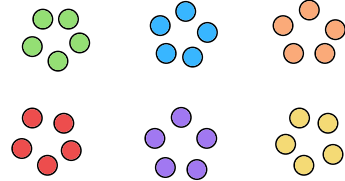
## Mix It Up

Having a variety of content pieces (videos, handouts, posters, articles, demonstrations, guest interviews, etc.) can further increase engagement. You can also encourage fun ways to process information individually or in groups by using sketchnotes, mind mapping, or something similar. The expert groups could even create a Pecha Kucha or prepare a story to help teach their piece. Have fun with it and the students will enjoy it too!



### 1 DIVIDE STUDENTS into GROUPS

- Divide students into **equally numbered groups** between 4—6 students. It is important that they are all the same size, but accommodations can be made in later steps if it is not possible.
- These groups are called the **jigsaw** or **learning groups**. Each member will be tasked with learning separate material or concepts from the rest of their learning group that they will then be responsible to teach to the other members of the group.
- Essentially, each member of the learning group will learn a **piece of a puzzle**. Then the entire team will cooperatively build on each other to learn the **entire puzzle**.



### 4 EXPERT GROUPS

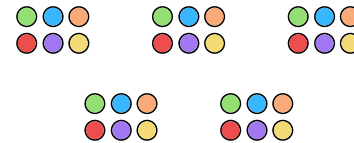


- After studying individually, now have them meet in a different team called an **expert group** with members from other groups who had the same piece of content as them.
- Give expert groups sufficient **time to process** the new information and make sense of the ideas under study. You can also provide **guiding questions or a process** to share their summaries, insights, disagreements, etc. to help them decide what is most important and ensure all understand well enough to teach it.
- The **final purpose** is to then prepare a way to **teach**—not just present—what they have learned to their jigsaw groups. This includes preparing a way to check for understanding.



### 2 DIVIDE CONTENT into CHUNKS

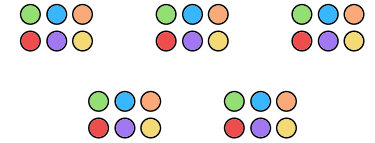
- Divide the content or concepts into the **same number of chunks** as the **number of students** in a group. **Each chunk** should represent a **piece of the puzzle**.
- Each piece of content can also be in a different form such as an article, a handout, a book chapter, a short video, a problem, an online resource, etc. or even a short experience such as a lab experiment, demonstration, or role-play.
- If there are uneven groups (i.e. a group of 7) or a weaker member, then two individuals may partner throughout the process.



### 5 JIGSAW GROUPS



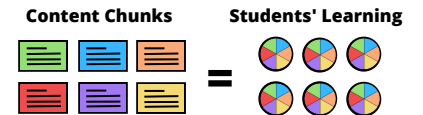
- At this point, have students return to their original jigsaw groups, where they will take turns teaching the other members of their team about their piece of the puzzle.
- **Each expert is responsible** for teaching their piece, checking for understanding, and assisting teammates in learning the concepts.
- Encourage learners to ask questions, take notes, reflect, build on the ideas of others, etc.
- **The key** is then to **synthesize** all of the information, to **fit all of the puzzle pieces together**, so it is often helpful to end with a **final discussion** among group members to make **generalizations**.



### 3 INDEPENDENT STUDY



- Determine how students will **engage** with the content or experience **individually**. It can be as simple as summarizing what they understood and identifying the main points of a text. It can even be more involved like creating a diagram or solving a problem. It can also be helpful to provide **templates** or structures **for study** such as Cornell Notes.
- Then give students or learners **time** dedicated to **process** the information or **reflect** on the content or experience **individually**.
- It is strongly encouraged that they write down their thoughts, so they can refer back to them in later conversations.



### 6 ASSESS LEARNING

- Finish by asking students to **debrief** the jigsaw process and their **own learning** in relation to the objectives. This can be done as a full class discussion, within the expert groups, on an exit card, individual conferences with the instructor, etc.
- Students can be assessed individually for their learning, but to **increase responsibility for collaboration**, student assessments can be averaged to create a **group score**. This encourages students to work harder at helping each other learn the material well.